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Investment in education : notes on criteria for the determination of priorities

by PETER LENGYEL,
Department of Social Sciences

That education is a vital and basic component of any programme of social and economic development in the modern world is readily conceded by all. Yet the tribute paid to the necessity for education is but an empty gesture if it is not followed up by adequate investment and by the practical encouragement, in every way possible, of a communal service which is as delicate and complex a matter as it is indispensable. Economists have unfortunately tended to neglect the real costs of education to society as a whole as against the benefits derived from the skills produced, which in part explains why, until quite recently, little guidance was available to permit of comparison between the cost of and returns on a given investment in education and the corresponding costs and returns on investment in other productive factors.

Any authority or government responsible for allocating resources in the interests of social and economic betterment is clearly faced with a number of conflicting claims on the limited means at its disposal. What is to guide the decisions to be made? On what basis is a certain sum to be earmarked for roads, for example, another for schools, a third for housing, a fourth for the establishment of an industry, and so on? On what basis is one to select a higher priority for houses than for schools, for dams than for factories, for hospitals than for railways? Clearly, such dilemmas cannot be resolved in any rational, objective manner unless evidence is available to show what returns may be expected on a given investment in any of these; moreover, such evidence must, as far as possible, be quantified so as to provide that common basis without which it is almost impossible to weigh non-comparables up against each other to any effective purpose. The establishment of priority criteria for planners is therefore a matter of great importance, and the present note sketches some of the considerations which must be taken into account, and some of the perplexities which must be resolved if education is to be awarded its rightful place in the overall scheme of investment for economic and social development.

Four peculiarities of education

To begin with, four peculiarities of education may be listed which distinguish it from many other forms of productive investment.[1]

In the first place, education is both an item of consumption and a factor of production. It is an item of consumption because it is valued for its own sake; not infrequently it is even, as it were, a luxury. People demand education for purposes of private satisfaction or for purely social ends, and if such education is not applied to productive purpose, or if its productive application is less than optimum, then education, from the strictly economic point of view, may be a service consumed like any other.

But education is also clearly a factor of production, for only as a result of education can the skills, attitudes, personalities and milieux be evolved upon which sophisticated modern technology and organization reposes. Just what percentage contribution education makes to the increase of wealth is exceedingly difficult to calculate. One fairly crude index may be obtained by subtracting the life income of an uneducated or semi-educated man from the life income of an educated or highly educated one. The difference is a margin in large measure imputable to education, though in most social systems due allowance must also be made for imperfections of mobility, competition and other factors which tend to distort the result significantly. An indirect approach, adopted by Professor Solow and others in their analyses of contributions accounting for the rise in non-farm production in the United States of America over the past 60 years is the following. Four factors are distinguished as contributing to higher economic performance; capital accumulation, population growth, new physical resources and a general item described as technological progress which includes skills, inventions, improved organization and so on. The first three factors were found to account for only some 10 per cent of the rise in productivity and income; the rest is imputed to the fourth factor, of which education must clearly be a very considerable component. Similar findings in European countries suggest that this pattern holds largely true at least in most Western societies. Again, it has been computed that public and private investment in education pays off, on the average, over 9 years in the United States of America compared with anything between 12 and 30 years for other forms of productive investment.

All such evidence points to the fact that, however one looks at the question, education is an immensely valuable production factor and an investment which, in material terms alone, yields a most favourable rate of return.

A second characteristic distinguishing education from other forms of invest-

1. A fuller account of some of the sources used in the following paragraphs is given in a lecture by H. M. Phillips, Chief of the Division of Applied Social Sciences, Department of Social Sciences, Unesco, delivered at the University of Texas in December 1960 and shortly to be published in *Southwestern Social Science Quarterly* under the title 'The Economics of Education'.

ment is that education yields a high margin of indirect returns. Whereas most other forms of investment are directed at modifying things, and only through them people, education acts directly on people who, in the final analysis, are a country's best asset—or its worst liability. Quite apart from creating the productive skills and attitudes already referred to, education also acts to promote discipline, to set up norms, to widen horizons, to open up new opportunities, to create markets—in short, it lends range, flexibility and scope to a society which are simply beyond reach without it, and this helps to lift a community bodily into a higher economic and social plane. Though inevitably education delays entry into the labour force, a period of training, even if it is chiefly vocational, tends to promote the absorption of expectations, tastes and styles which are later translated into effective demands for an ever-widening variety of goods and services. Equally, education is in part a process helping to demonstrate the advantages of postponed benefits; it thus has a bearing on individual saving and the optimum allocation of family income which is far from negligible in the context of any society. Initiative and entrepreneurship, two qualities which, historically, have not always found favour in all cultures but which are undoubtedly important catalysts for development, can also to some extent be encouraged by appropriate educational orientation.

A third distinguishing characteristic of education is its highly differential cost and yield according to a country's general level of economic and social evolution. Houses and roads cost much the same to build in Britain or Pakistan, due allowance made for conventional quality standards and factor prices. Education, however, not only costs more according to whether pre-investments in teacher training, more buildings, new textbooks and so on must be made before a given programme can be put into effect, or whether existing resources need merely to be modified or expanded, but it also may yield less in societies inadequately organized to make full use of talent and training. Many underdeveloped countries today find themselves in the difficult position of having to invest heavily in what will amount to a few years of, at best, mediocre primary schooling, the returns on which are not likely to be very spectacular. Affluent societies, on the other hand, which already possess an adequate educational infra-structure, can reap much more than proportionate benefits through relatively modest investment in certain types of training, such as vocational instruction or higher scientific specialization leading to research and innovation. Increasing and decreasing returns to scale and quality, and differential costs related to the age structure and geographical dispersion of populations are important exogenous variables governing educational investment and returns. By and large, they tend to work in disfavour of the poorer countries, which is one reason why the educational dilemma in the underdeveloped world is particularly acute and dispiriting.

The fourth and last characteristic of education is that, of all forms of productive investment, it is the one most hedged about with non-objective and non-rational considerations. The educational system of every country is an

integral part of its total culture and thus historical, religious, political and traditional considerations apply to it which do not apply, at least in equal measure, to other forms of investment. This makes education particularly hard to compare with alternative or complementary development measures, especially as the very idea of education as a tool in the service of economic and social advancement is still, in many places, a novelty. But its very dual nature as both a consumption item and a productive resource, education is subject to arguments which tend to short-circuit the planner's balanced approach. Thus, education is regarded as a fundamental human right, a spiritual claim which should be denied to no single citizen. Education is also a matter of national prestige, a source of politically irresistible pressures and a factor in shaping communal identity. The force of such considerations cannot be denied, nor should the truth and value of some of them be minimized. At the same time, it is the economist's duty to point out that costs and returns cannot be escaped; if, for policy reasons, education is given a higher priority than, on strictly objective utilitarian evidence, it is entitled to occupy, then the least that should be done is to compute the cost of such a priority rating to the community. It may well be that, in the long run, all educational investment pays off, but it is certain that, in the short run, certain educational expenditures bear no material fruit. This should be frankly acknowledged in order to parry possible criticism concerning wastage of resources, and in order that due allowance for it can be made when it comes to projections relating to the ultimate returns on given investment increments.

Three problem-clusters

Having summarized a few of the peculiarities of education looked at from without itself and in cold juxtaposition with areas of human endeavour which are not conventionally related to it directly, one may go on to identify three broad groups of problems which still need to be resolved before objective criteria to determine investment priorities can be evolved.

The first problem-cluster relates to the availability of accurate knowledge without which the planner's function is closer to that of an astrologist than to that of a surgeon. Statistics must be collected concerning the population, its age-structure, its dispersion, its migratory tendencies and so on. Furthermore, school performance records, inspection reports, information about effective pupil-teacher ratios and about pupil drop-out rates should be at hand. Equally, it is highly desirable to construct manpower projections to show which way an economy can be expected to develop, what skills may be in increasing and what other skills in decreasing demand, so that education can be geared to the world wherein present pupils will ultimately have to live and work. Such knowledge is neither easy nor cheap and rapid to come by, but the effort and expense of acquiring it pays heavy dividends.

A second problem-cluster relates to the phasing of educational investment and

its dovetailing with other efforts to promote social and economic development. Clearly, it is desirable for education to be integrated as fully as possible with any overall development plans which may exist. But even in countries where there is little overall planning, educational authorities should be in possession of the fullest available data concerning the economy at large so that their decisions may be related to various identifiable trends and tendencies. Only by relating educational investment as closely as possible to the changing structure of society as a whole does it become possible to avoid major blunders on the one hand and to evolve a realistic policy of accommodation to ensure that education neither outstrips nor lags behind other sectors. The questions of *what* to do must always be supplemented by the question of *when* to do it; only the combination of the right thing at the right time spells optimum success.

The third problem-cluster concerns policy problems within the educational sector itself. Even if data are available, and general trends and needs have been taken into consideration, it remains to be determined by what means the desired results can most economically be obtained. Education is by no means a homogeneous service which can only be administered in a single manner. On the contrary, there are many possible permutations and it is always worth examining different alternatives to see which one suits a given situation best. Thus decisions must be made on whether to concentrate on quality rather than quantity, on vocational rather than general instruction, on centralized rather than diffused educational facilities, on private rather than public initiative, on uniform rather than flexible curricula, on the promotion of social mobility through the subsidization of talent rather than on reliance upon access to education via family means, and a host of other questions. Each of these choices may have measurable repercussions, and each of them, when carefully weighed, may suggest improved ways of allocating scarce resources.

In conclusion, it may be pointed out that the deliberate use of education as an instrument in social and economic development involves a special kind of responsibility. Traditionally, education was regarded as a process designed to fit the young to take their place as adult citizens and breadwinners in the community. But the shape of that community was not brought seriously into question, and education therefore tended to be directed at fixed goals. If, now, society as a whole is to be set in motion partly as a result of education, if, in other words, education is to prepare the young for a world which does not as yet exist and which in many ways they must forge, then clearly great caution and forethought is called for. Individuals, once formed, must be accommodated by the community in a manner which at least roughly corresponds to their expectations, otherwise they will become the dissident and disaffected elements which constitute a permanent source of social friction. Hence educational development must be integrated with other measures to promote economic and social progress ideally in such a manner as neither to outstrip nor to hamper overall evolution.

Project for an international Indian Ocean expedition

Although the Indian Ocean's 28,000,000 square miles cover over 14 per cent of the earth's surface, relatively little is known or understood about the region, which has an area five and a half times that of Antarctica and greater than that of Asia and Africa combined. The ocean's behaviour affects all of these continents, yet only the most general features of its topography and circulation and the distribution of living organisms are known.

The Indian Ocean has several unique characteristics. Nowhere else in the world is there a similar seasonal reversal of the prevailing wind. The wind system in that part of the ocean lying about the equator is characterized by the two monsoons, one blowing from the north-east for approximately six months and the other blowing from the south-west for the rest of the year. This phenomenon has a vast but essentially still unknown effect upon the currents and organisms in the waters.

Another notable feature is the apparent productivity of this ocean. In June 1957, a Russian ship, not far from the main trade route between Colombo and the Gulf of Aden, reported millions of tons of dead fish floating in an area some 1,000 kilometres long and 200 kilometres wide extending across the middle of the ocean. Similar reports came simultaneously from British ships in the region. During the same year, smaller fish kills were reported in nearby parts of the Arabian Sea. It is not known how the fish were killed, but the very size of this catastrophe gives some idea of the potential mid-ocean resources which are currently untapped. There is further fragmentary evidence of unusually high productivity.

The Indian Ocean is one of our last unexplored frontiers. Since 1873, less than two dozen vessels have carried out oceanographic investigations there. Modern techniques have only been used in quite limited areas. Limited coverage has left great gaps in both areas visited and in the nature, intensity and accuracy of observations. No systematic study has been attempted, nor do the combined profiles of the observations reported give more than a preliminary picture of the ocean's behaviour and characteristics.

Many of the nations lying in the tropical and sub-tropical regions which surround the Indian Ocean are among the world's most densely populated countries, with continuing rapid growth. Over a quarter of the world's people live in

these countries. Population pressures on their existing food supplies result in prevalence of diseases attributed to protein starvation. Such protein deficiencies are common in India, Ceylon, Indonesia, Malaya and in parts of the east coast of Africa. Some of the nations bordering the Indian Ocean have a seafaring tradition and conduct extensive fisheries. To feed their crowded populations, they are anxious to expand these fisheries. All these reasons led the General Conference of Unesco to approve the organization of an international scientific expedition in this region of the world.

EXPEDITION DESIGN

Under the sponsorship of Unesco, the International Council of Scientific Unions (ICSU) and its Special Committee on Oceanic Research (SCOR) scientists in the various nations experienced in oceanographic research will staff vessels provided by marine laboratories of several nations and territories. Scientists from countries unable to provide vessels will be invited to work in the expedition's ships. No effort will be spared to obtain active participation by each nation bordering the Indian Ocean. The degree and nature of participation will depend partly on the ability of each country to provide funds, facilities and personnel, but also on general interest in advancement of the science of oceanography.

Hitherto, 10 countries have announced their intention of assembling 24 ships: Australia (2), British East African Territories (1), France (1), Federal Republic of Germany (1), Japan (5), Pakistan (2), Union of South Africa (3), Union of Soviet Socialist Republics (4), United Kingdom (2) and United States of America (3). In addition, the following eight countries are planing to participate either aboard other nations' ships or in their own: Ceylon, China (Taiwan), Denmark, India, Indonesia, Israel, Netherlands and Portugal.

The period of peak activity will occur in 1962 and 1963. The expedition will continue into 1964 and data analysis will undoubtedly continue past that date. An atlas incorporating the full findings is contemplated.

Owing to the present scarcity of information on the Indian Ocean, there will need to be continuous revision and re-examination of the plans as new data are acquired. Every effort will be made to complete preliminary processing and anaylsis of data within six to eight months in order to redirect subsequent cruises. This fact, together with the importance of obtaining a series of observations of the same area in different seasons, makes it desirable to spread the programme over several years, rather than to make a major simultaneous effort.

A preliminary and tentative cruise pattern for the entire Indian Ocean has been agreed upon by members of SCOR and National Committees. In regions where seasonal differences due to monsoons are significant, ships will cruise twice along the same track. To complete the pattern will require about 10 ship-years of operation over a total of 188,000 miles.

Uniform standards for observation techniques and instrumentation will be

established. Exchanges of scientists between ships of participating nations will be arranged. Existing World Data Centres will be used as repositories and new biological centres for analysis and custody of biological specimens will be established in the Indian Ocean area.

Ships participating in the expedition will devote at least half of their time to work according to the co-ordinated grid and half to independent investigations determined by the scientists involved. The intensity of studies in a given area will depend on the nature of the phenomena anticipated; thus many more observations may be expected in the boundary currents at the borders than in mid-ocean. Division of national responsibility for the various segments of the co-ordinated plan will be negotiated at a number of expert meetings. All nations which have agreed to participate have also agreed to adjust their plans to the common programme.

PROBLEMS TO BE STUDIED

Physical oceanography

Several fundamental oceanographic problems can be studied more efficiently in the Indian Ocean than elsewhere because of the reversal of the winds. Understanding the oceanic processes here will contribute to a knowledge of all oceans. The plan is to study basic questions such as: How long does it take the winds to set up a current? How rapidly does this current deepen with time? What percentage of the energy required to maintain an ocean current comes from the winds and what part of it comes from the horizontal density gradients due to regional climatic differences? How does internal friction and how does friction with the bottom influence the velocity-depth distribution? What is cause and what is effect in the general circulation of the oceans?

The Indian Ocean is a vast environmental laboratory eminently suited for the investigation of these problems. It is a complete ocean system, yet small enough to be studied as a whole. While it is too large for a single nation's efforts, it is ideal for an international co-operative endeavour. Extending from polar through tropical waters, and divided in its northern part into small oceans each subject to radical seasonal reversals of wind, it offers unparalleled opportunity for a wide variety of specialized investigations.

Chemical oceanography

The Indian Ocean is unique among the world's seas in several ways. One of these, of course, is the extent of our scientific ignorance about it. From this point of view, the systematic collection of physical and chemical data during the survey will be very valuable, because for the first time it will be possible to describe the distribution of plant nutrients and dissolved organic compounds.

Perhaps a more significant singularity of the Indian Ocean is the fact that it is such a large basin closed off from exchange with other seas north of about 40°S. Into this vast gulf pour quantities of drainage water from the land carrying their burden of substances dissolved from the rocks and soil. Thus it is an ideal place to study the effect of runoff on the composition of sea water. For example, studies of elements such as copper and barium, with a relatively short residence time in the sea, should show concentrations markedly higher than in the Pacific or Atlantic.

In recent years the application of geochemical techniques to oceanic problems has added much to our understanding of residence times and of the rates of exchange between surface and deep waters. During the expedition, samples will be collected for carbon-14 dating, for analysis of carbon and oxygen isotopes, and for radium assay. This geochemical survey of an entire ocean will permit a much better evaluation of the circulation than has been possible where the sampling has been neither so systematic nor so extensive.

Meteorology

The meteorological objective is to obtain increased understanding of the energy exchange between sea and atmosphere, particularly near the air-sea boundary. To this end, basic research will be carried out on radiation input and on interaction of atmospheric pressure, winds, cloudiness, rainfall and evaporation with temperature, movement and roughness of the sea. A SCOR working group is drafting a list of desirable objectives in conjunction with various meteorological organizations.

Marine biology

In addition to its effect on the circulation of near-surface waters, the monsoonal reversal of winds is expected to have important biological repercussions. Regions of upwelling and of high productivity should develop, decay, and shift from place to place, so that dramatic changes in the distribution and abundance of marine organisms can be anticipated. Nowhere else in the world ocean is it possible to study the interaction of atmosphere and biosphere on such a scale.

Standard biological collections and measurements made systematically over the whole area will define the biological 'structure' of the ocean, the three-dimensional distribution of plants and animals. Integration of these observations will permit an assessment of the magnitude of the living resources. They also will provide the basic biological information—the distribution of fish eggs and larvae, and of fish food, for example—which are essential to a full understanding of fluctuations in the abundance and availability of commercial fish.

Since the war, great advances have been made in the techniques for measuring primary production of organic matter. The widespread, systematic use of these

methods by the ships of the expedition will help us to assay, for the first time, the fertility of the Indian Ocean.

Marine geology and geophysics

Except for data collected during the International Geophysical Year, bottom topography and the crustal structure underlying the Indian Ocean are barely known. Old soundings delineate major structural components comparable to those of the Pacific and the Atlantic—trenches, undersea mountain ranges, a mid-ocean swell, and possibly fracture zones. The arrangement of these components and their relationship to the structures of the bordering continents are markedly different in the Pacific and Atlantic. Is the Indian Ocean a Pacific or an Atlantic type ocean? Precise modern soundings, in addition to clarifying this issue, will be of immediate use in providing a base map for all the other studies and data necessary for navigational charts, and it is even possible that they may uncover rich shallow-water fisheries at considerable distances from shore. Integrated geophysical studies—of the areal pattern of heat flowing from beneath the crust, the gravity field, the crustal thickness, and magnetic characteristics of oceanic and border areas—will certainly furnish basic information for the problems of ocean and continent development.

Intensive coring, dredging and bottom photography, will yield data on processes of sedimentation, productivity, climatic and magnetic changes during the last several millions of years, and the distribution of potential ores of manganese, nickel and cobalt in manganese nodules.

PRACTICAL RESULTS EXPECTED

The proposed research will provide fundamental and valuable scientific knowledge. Some findings will have direct and immediate bearing on economic development and human welfare. Location of shoals and regions of upwelling will identify likely fishing areas. Studies of distribution, nature and seasonal variation in nutrients and marine organisms will indicate what to fish for and when. Preliminary quantitative estimates of fish population, when supplemented by exploratory fishing will suggest the magnitude of the fishery resource.

The data obtained will provide an essential part of the information on which decisions can ultimately be reached on the nature of fishery operations, markets and methods of marketing, extent of investment, and related development problems. A new source of protein could mean food for hungry people. If it came from the ocean, land and other capital devoted to protein food raising could be shifted to other uses. Marine organisms could also provide fertilizer and animal feed in areas now lacking adequate supplies.

Meteorological information, related to oceanographic knowledge, will be obtained on a synoptic basis. This may lead to better long range weather fore-

casting. The ability to predict the onset of the monsoon and to estimate variations in the quantity of rainfall bears directly on flood control and on water regimen for agricultural use. The understanding of variations in location and intensity of ocean currents can lead to more economic routing of ships. Such knowledge applied in the North Atlantic has resulted in savings of as much as 10 per cent in fuel consumption.

Charting and sampling the ocean floor through soundings, cores, geophysical measures, dredging and photography provide information useful for navigation and fisheries, and may reveal resources of economic value.

Finally, as never before, intensive training and experience in oceanographic research will be available to residents of a maritime area. Vessels with facilities for about three hundred and fifty scientists will operate on the expedition. Exchange of scientists between ships and partial cruises by individuals will increase the number of training billets available and vary their experience. Data processing centres and biological classification laboratories will serve as nuclei for post-expedition scientific development around the Indian Ocean.

In other parts of the world, the focus over several years on the International Indian Ocean Expedition would serve as a device to attract students to the field of oceanography, helping to relieve a world shortage of marine scientists.

The presence of Eastern and African cultures at Unesco [1]

by JACQUES HAVET,
Co-ordinator of the East-West major project

The Orient and Africa together form the major part of the 'uncommitted bloc'—in other words, the group of underdeveloped countries whose common problems give them, despite their differences and occasional disagreements, a strong sense of mutual dependence and loyalty to one another.

These peoples, so recently silent or compelled to express themselves through others, have regained their independence and can now speak for themselves; their participation in world affairs will henceforth have a decisive effect on all aspects of international politics.

This 'uncommitted bloc' also represents a group of cultures, many of them with a glorious past but obliged today to adapt themselves to the contemporary world in order that the peoples concerned may have a properly balanced outlook; the independence of these nations depends upon the free development of their cultures, with which the Western world must open a dialogue.

Considering the matter from the loftiest standpoint, i.e., from the moral standpoint of fundamental human relationships, we cannot speak of the Orient or Africa without reminding the international community of an ineluctable responsibility, namely, the obligation to assist in the development of nations which were for a long time unjustly treated. Great Powers are no doubt strongly tempted to see the future destiny to be chosen by these two parts of the world in terms of their own political rivalry; it is only fair to add, however, that the peoples of these two regions are showing increasing and unmistakable reluctance to accept any assistance tinged with neo-imperialism. Recognition of this fact is gradually introducing a new style into international relations within the United Nations family.

This is, roughly speaking, the situation with which we are now faced and of which we are constantly reminded by day-to-day events; Unesco, as an intergovernmental organization dealing with education, science and culture, i.e., with intellectual life at all levels, including both its actual content and the instruments for its development and democratization, cannot fail to take account of this situation.

1. Extracts from an address given in Geneva, on 17 February 1961, to the Swiss National Commission for Unesco.

Two aspects of its programme are particularly noteworthy, not only because of the keen interest they have aroused, but also because, in different contexts and in different ways, they both reveal Unesco's desire to promote human culture.

The East-West major project

Unesco's National Commissions are already familiar with the programme of the Major Project on Mutual Appreciation of Eastern and Western Cultural Values and the fact that most of them are taking an active part in its implementation testifies to their interest.[1] There is thus no need for me to dwell on the details of this programme. On the other hand, I think it useful to explain here how the central problem of East-West understanding has been treated by Unesco and a number of crucial questions, both practical and theoretical, have been able to be defined more clearly during the four years which have elapsed since the General Conference adopted the major project.

To go back to 1956, it will be remembered, first of all, that the adoption of the major project was strongly recommended by the National Commissions themselves. The Asian National Commissions in Tokyo and, shortly afterwards, the European National Commissions in Aix-en-Provence spoke for the general public, which was undoubtedly moved by an obscurely felt need for spiritual unity.

It was still necessary, however, to clarify the theoretical basis of the major project, the very title of which seemed fraught with ambiguities. One of the happiest results of the adoption of this project was that it started people thinking in many countries, provided a framework for their ideas and pointed to the problems to be solved. At the same time, Unesco continued and intensified its practical activities for the multiplication of exchanges and the improvement of education. It issued an appeal to its Member States and to private international organizations, and this appeal met with a broad response. All these activities, directed towards the same end, were a prerequisite for the project's success; moreover, the various achievements and failures and experience of the difficulties encountered made it easier to identify and pin-point the problems awaiting solution.

Thanks to this thorough preparatory work, the Advisory Committee, at its second meeting in 1958, was able to present for the first time, in the form of a 'Joint Declaration',[2] a truly coherent statement of the motives underlying the project. In this declaration, the committee first analyses the main reasons for taking the action planned under the major project, and this it does, with remarkable frankness, in the light of a study of the present-day factors determining

1. See *Unesco Chronicle*, Vol. III, No. 6; Vol. IV, No. 11; Vol. VI, No. 11.
2. The full text of this 'Joint Declaration' is to be found in the *Unesco Chronicle*, Vol. IV, No. 4 (April 1958).

relationships between the peoples of the Orient and Occident. While recalling notable instances of harmony and cross-fertilizations of cultures, it draws attention to the obstacles—psychological and political—which still hinder the development of mutual understanding; but it takes good care to describe these obstacles in close relationship with the new situations which are characteristic of the historical development of our modern world and apart from which the magnitude of those obstacles cannot be estimated with any accuracy. These new situations are: the emergence of democracy, nationalism and the tendency to federation, economic and technical development with the assistance of the international community, the extension and progress of education, the ever-increasing consciousness of the equality of nations, the right of every culture to free development on its own lines, the necessity for constant adaptation of traditional elements of culture to new forms of social, economic and political life, whether due to internal change or to outside contacts. For all these reasons, the committee considers that action taken under the major project should aim at reducing psychological and political barriers and at facilitating the fullest possible understanding of the phenomena resulting from modernization, each culture keeping its own individuality but remaining open to others.

In considering both the need to increase the means of mutual knowledge made available to the Eastern and Western peoples through education and cultural activities in general, and the need to eliminate prejudices and create more generous psychological attitudes, the Advisory Committee emphasized that cultural realities should be 'viewed from a wide angle', in their historical, geographical and social contexts, in order to show how the same human nature expresses itself with equal justification in a variety of ways and to urge men to rise above the level of bitterness and blind resentments—the immediate level—and try to reach the serener level of mutual understanding—the level of conscious thought.

Thus the committee clearly and specifically pointed out that the necessary dialogue between Orient and Occident must make allowance for historical evolution. The fundamental aim of the major project is to promote understanding, and to understand is to view realities from an ever wider angle. To understand, today, is to understand oneself in relation to others as well as to understand others. And finally, to understand is to interpret—considering them in relation to one another and as inseparably linked—the finest cultural values in a nation's past history and those which it is at present fashioning, humbly or brilliantly, in an effort to reassert and develop its own personality.

In other words, the concept of cultures as objets, always studied from the outside and never revealing their inner content, was rejected and replaced by the concept of cultures as subjects. Unesco's task was to invite each Eastern and Western culture to speak for itself in a freely accepted dialogue, and to present all peoples with a framework for international co-operation, wherein each would be able to play an active part on an equal footing.

Such, then, was the ideal behind this programme, but it still had to be measured against reality. Experience soon confirmed what the Advisory Committee already knew, namely that the conditions under which Eastern and Western peoples could simply have exchanged expressions of their respective cultures—both sufficiently genuine and able to be assimilated immediately by the general public—did not yet exist. Nor was it enough to encourage specialists in foreign cultures, in each country, to supervise the popularization of knowledge acquired through specialized research and to assist educators in their task.

A roundabout procedure proved necessary. Without neglecting the action already undertaken, it was considered essential also to encourage a scientific study of the different cultures, adopting the new approach of breaking down the barriers between the various specialized fields of learning, associating the different branches of the humanistic studies and social sciences in a wider and more comprehensive interpretation of these cultures, establishing points of similarity within the framework of large geographical units, and taking account of the present vitality of these cultures in relation to the new social conditions. At the same time, it was seen that these swiftly developing cultures, and particularly those of the Orient, could be correctly appraised only in the light of research conducted by scholars belonging to these cultures, working in co-operation with their foreign colleagues. To put it briefly, experience showed Unesco that it could not simply take the short cut of exchanges and popularization, but would have to undertake a far more ambitious and lengthy task, yet one of capital importance for the achievement of the objectives of the major project, namely the task of stimulating, within each culture and through international co-operation at the highest level, a campaign of very thorough research, involving study of the past history of the culture concerned, its present development and relations with other cultures. Only thus could the peoples, at last possessing means of analysis and expression less scandalously unequal than in the past, engage in a real dialogue, which would then continue naturally by itself.

Such an idea can be carried into effect only through the medium of institutions undertaking to conduct research programmes in line with the aims of the major project. One of the new aspects of the major project programme is precisely to encourage the creation of such institutions, beginning with the Orient, and to enable them to develop their activities on the basis of international co-operation. Negotiations have now been proceeding for over a year with a view to the establishment of such a network of associated institutions for the study and presentation of cultures. Generous offers have been received from Japan, India, Lebanon and the United Arab Republic. An institute for the study of East Asia is about to be opened in Tokyo; documentation on current research on the Far East throughout the world is now being assembled by the Japanese National Commission, and a service for information on research and its co-ordination is being organized. In September next, an international meeting of experts is to draw up a first programme of new studies, and Unesco will be able to give them

some support, as far as its all too modest budgetary resources permit; the Organization will also grant fellowships to facilitate participation in this work by young research workers from various countries of the region. Next year, similar arrangements will be made for South Asia, and the Arabian Middle East; the first elements of a network of corresponding institutions will thus be established. The Occident will then begin the no less weighty task of studying its own culture and presenting a general picture of it to the Orient.

Unfortunately, the material resources available to the international community for the implementation of such a project are extremely limited in comparison with those at its disposal for the immense task of equipping the underdeveloped nations and extending education. Here, Unesco can but point to the course to be followed, launch a campaign, or help a few research workers to improve their training, to work together as a team, and to understand what is required in order that each people may become fully aware of its own culture and that there may be communication between the various cultures. The Organization hopes that its modest efforts in this direction will inspire the different nations, particularly in the Orient, with the firm resolve to equip themselves with the necessary means of carrying out a patient and thorough study of their respective cultures and thus establishing a sound and permanent basis for their future dialogue.

The peoples of Asia can boast of an ancient civilization, of which written evidence and monuments have in many cases survived up to the present time without any break in continuity. Having now become accustomed to independence and participated in international life for several years, these nations have drawn up, with the help of the world community, long-term plans for their social and educational development. An independent project, based on the principle of the equality of rights between cultures and on that of the absolute reciprocity of human relationships in the intellectual sphere, has been established to promote cultural exchanges and mutual understanding between these peoples and the Occident. It is significant that, in order to put these principles of equality and reciprocity into practice. Unesco has had to tackle, although only at the highest intellectual level and with extremely modest resources, a problem concerning the development and equipment of communities in process of evolution.

The reaffirmation of African culture

With regard to the situation in Africa, Unesco is faced with two problems which are inextricably linked: the dramatically urgent need for social and educational development at all levels, and the need for a reaffirmation of African culture within the international community. Here, the requirements to be met by international action are infinitely more radical.

For all those who attended the recent session of the General Conference, the participation of the African delegations was an extraordinary event, a true revelation. These representatives of a continent so long neglected not only testified to

the vitality of a group of cultures distinguished by sincerity, nearness to nature, generosity of inspiration and a strong sense of beauty, but also, by virtue of a long history of bondage and humiliation, presented a picture of human destiny in its most moving and universal form; they gave a most striking example of high-minded understanding, moderation and realism in the best sense of the word. The maturity of thought which they revealed during the debates exceeded all expectations. Political and diplomatic reasons alone cannot explain the unanimity of all the delegations with respect to the African problem. A feeling of human sympathy and unity was undoubtedly in the air during the conference's administrative work.

Education, in the broadest sense, is indispensable to 'independence', 'responsibility', 'progress' and 'stability'. Thus, the General Conference, in its resolution 1.2322, expressed 'its conviction that the most urgent and vital need in Africa today is education; and that, in meeting this need, planned and balanced educational development must be both a part of the economic and social plans of the region and an essential element in fulfilment of the right to education embodied in the Universal Declaration of Human Rights'.

The programme for Africa, adopted for 1961-62, might be described as a standard programme, a very flexible general plan providing the necessary basis for the development of education. It allows for general studies and special surveys, without which any long-term action could not attain its ends. But it also contains some projects which are already beginning to meet the most urgent needs, and others which are pilot-projects, extending the general studies, establishing the first elements of the structures and institutions required for the organization of work, and tackling the long-term problems of training specialized staff, preparing textbooks and other educational material, and constructing school building. Lastly, some of these projects aim at the implantation of education in the African social and cultural context and its adjustment to modern conditions.[1]

The strictly cultural aspect of Africa's rebirth is undoubtedly the most moving one. As Africa enters the world community, its rightful place is automatically indicated by its past, its traditions and its history. Thus, Africa's presence today is not simply the outcome of the upward surge of young peoples, a manifestation of vitality; it is also evidence of a newly-restored dignity, of a retrieved heritage, of the recognition of an ancestral past. Thus, Africa does not want merely to obtain assistance for its economic and social development; it also wishes to recover and reassert its own personality. It is anxious not only to receive but also to give.

Here, too, Unesco has a mission to fulfil. It is particularly well qualified to organize co-operation with Africa on a basis of give and take and thus fulfil the

1. See *Unesco Chronicle*, Vol. VII, No. 3, for a general outline of Unesco's programme for Africa for 1961-62.

hope once expressed by an African poet. The contribution of African cultures will add to the Organization's universality, which is based on respect for the diversity of civilizations and has so far been most tellingly reflected, in the East-West major project.

And so, in addition to the programmes of an essentially instrumental nature, a new programme of studies of African cultures has been undertaken; it is interesting to note here that similar studies were required for the implementation of the East-West major project. The first task is to take stock of the situation, ascertain how much is at present known and define the main problems to be solved. A preliminary survey was recently made at a symposium organized in Nigeria by the University of Ibadan in co-operation with Unesco. This symposium was but the first of a series of activities designed to make Africa better known and, above all, to give African historians, ethnologists and linguists, as well as writers and artists, the opportunity to express their own views on their national heritage freely and in friendly co-operation with foreign specialists in African questions.

The following topics, which were discussed by the Ibadan symposium, will be the subject of several long-term research projects to be carried out by centres situated in various parts of Africa: study of the origin and history of the African peoples, designed to resuscitate a past that has been denied to them for so long; study of the vast problem of African languages (indigenous and borrowed) and of their role in education, cultural life and exchanges; studies of African values, particularly in the traditional arts, sculpture, dancing and music, and in oral literatures; studies of the place and influence of this cultural heritage in communities now undergoing sweeping changes; the influence of modernization and of industrialization; and the new facilities afforded by modern mass communication media and the attendant dangers. Unesco will assist in the organization of meetings of working parties, in the recording of oral traditions and in the compilation of documentation on cultural facts; it will also facilitate study tours by African specialists. The development of such activities, which will be conducted by the Africans themselves, profiting by Western experience and, at the same time, bearing Africa's present needs and objectives in mind, will ultimately, and on a long-term basis, be the guiding principle of every programme for the promotion of education and for social and cultural progress in Africa, as well as a prerequisite for the dialogue between Africa and the rest of the world.

Educational and social development implies the furtherance of culture and is connected with the problem of communication. The preparation by Unesco of the East-West major project and the drawing up of the programmes for Africa show how these factors are inseparably linked.

A declaration by President Nasser concerning the safeguarding of the monuments of Nubia

Mr. René Maheu, Acting Director-General of Unesco, accompanied by His Excellency Mr. Sarwat Okasha, Minister of Culture and National Guidance of the United Arab Republic, was received by His Excellency President Gamal Abdel Nasser in Cairo, on Monday, 13 March.

After warmly thanking Mr. Maheu for Unesco's work and the results so far achieved in safeguarding the monuments of Nubia threatened by the Aswan High Dam, President Nasser made public a statement after his meeting with Mr. Maheu in which he emphasized the importance his country attaches to this international campaign and stressed his own interest in it. The text of this statement is a follows:

The world's conscience has now awakened to a deep awareness of the importance of safeguarding the monuments of Nubia in response to the international appeal launched by the United Nations Educational, Scientific and Cultural Organization on 8 March 1960. Through this appeal, Unesco sought to arouse the energies and goodwill of all peoples in a cause deeply rooted in the ancient history of civilization and symbolic of the hopes of mankind.

In this way we can continue to progress towards a better future while being vigilant in the preservation of the origins of our culture and progress. We pin our hopes on the High Dam for the implementation of our plans of economic development; but likewise we pin our hopes on the preservation of the Nubian treasures in order to keep alive monuments which are not only dear to our hearts, we being their guardians, but dear to the whole world which believes that the ancient and the new components of human culture should blend in one harmonious whole.

The preservation of the legacy of mankind is no less important than the construction of dams, the erection of factories and the greater prosperity of the people. We have no doubt that awareness of our cultural heritage is most able to give back to the world its confidence in human brotherhood and in international co-operation between peoples, no matter how divergent their convictions and leanings.

Unesco has contributed much to the creation of this sense of solidarity and to the action undertaken to safeguard the monuments through the facilities and funds it has made available and through the co-operative spirit which

has guided the specialists and the groups of scientists who have taken an interest in this unique endeavour.

We have high hopes that this spirit will persevere until all difficulties are overcome and the preservation of the Nubian monuments is assured, particularly the temples of Philae and Abu Simbel, to which the Government of the United Arab Republic attaches special importance. The safeguarding of these monuments will provide convincing evidence of human fellow-feeling in our century, and of a determination to use the latest scientific techniques to protect this priceless legacy for the generations to come.

The Government of the United Arab Republic has allotted, in its budgets for the coming seven years, an amount of three and a half million Egyptian pounds for participation in this world campaign, the noble aims of which will surely be attained.

It is our task, as the Government responsible, to perfect the best possible plan for the safeguarding of Abu Simbel in particular. The technical committees have done their task well, and the Government is now carrying out all the necessary complementary studies so that its decisions may be founded on a firm basis, which will assure us of success.

The United Arab Republic is very appreciative of all efforts made by Unesco and its Member States, to whom we are most grateful for such precious assistance. We also very much appreciate the work of the archaeologists, scientists and experts who have devotedly carried out the studies and research necessary to ensure that the project will be executed as effectively as the world hopes and expects.

We sincerely hope that this spirit of international co-operation will prevail after the completion of the project, and that archaeologists will find other fields for fruitful research in the Nile Valley. We shall, indeed, be only too happy if the Valley of the Nile continues to be the meeting place of archaeologists and men of science, just as in the past it was the shrine of a great culture whose glorious vestiges are still defying time on these river banks.

It may be that in a not too distant future, the brotherhood of mankind will everywhere become the characteristic of this century, and that a spirit of goodness and truth will dominate and lead humanity towards peace, happiness and a conscience at rest.

The development of information media in Latin America

A series of far-reaching suggestions for the development of press, radio, film and television in Latin America were adopted in Santiago, Chile, at the conclusion of a two-week meeting convened by Unesco in February last, to discuss information problems of the area.

Experts from 22 countries, members of the United Nations Economic Commission for Latin America and invited by Unesco in an individual capacity, together with observers from 20 governments and 11 international organizations, attended the meeting which brought together some of the leading figures in the Latin American information field as well as experts from France, the Netherlands, the United Kingdom and the United States of America.

The Santiago meeting was held within the framework of a survey of information needs conducted by Unesco and aimed at formulating a programme of technical assistance for the expansion of information media in countries in process of economic development. A similar meeting for Asia was held in 1960, and one for Africa is scheduled at Addis Ababa in 1962.

The Santiago meeting concentrated on three main aspects of information and dealt with them in three working groups: newspapers, periodicals and news agencies; radio broadcasting, television and films; and training and research in mass communication.

The role of the media in education is of immense importance to countries which are seeking to achieve, in a matter of years, a level of advancement which it has taken the developed countries centuries to attain. At the same time, the media contribute directly to the enjoyment of a basic human right—freedom of information. But without adequate facilities for the transmission of information, that right cannot be effectively enjoyed. It was pointed out in a recent Unesco survey that 70 per cent of the world's population lacked the barest means of being informed, particularly in the rural areas of Asia, Africa and Latin America.

The meeting therefore recommended a number of measures to be taken as quickly as possible.

Priorities

At the top of the list figure the development of national news agencies where they exist and the setting up of such agencies, preferably on a co-operative basis, elsewhere; special assistance in the development of information services for the rural areas, now badly equipped; the project to establish an Inter-American Telecommunication Network (RIT) which would greatly facilitate the flow of news within, to and from Latin America.

Common to all mass communication organizations is the need for technical and professional staff. A number of measures to provide accelerated and thorough training were proposed.

Working conditions

It was generally agreed that journalists' working conditions left much to be desired in Latin America, and the meeting noted a plan presented by the Chilean College of Journalists calling for sufficient pay to ensure adequate living conditions without the necessity of holding down two or more jobs.

The meeting urged adoption of legislation to guarantee minimum rates and called on governments to ensure, together with professional associations, that these rates are protected against increasing living costs and inflation. It was emphasized that a possibility for further advancing international action in this field is offered by an International Labour Organisation proposal to hold a meeting of experts in 1962 to study working conditions in the mass communication professions.

News agencies

National and international assistance in the form of expert missions and long-term loans is needed to encourage the expansion of existing national news agencies and to help establish new ones. One of the first steps should be the organization by Unesco of a seminar in the region, for directors of national agencies, for representatives of the local press and of other news agencies. In preparation for this, studies should be made of the flow of news in Latin America, and of the development of news agencies in other countries, particularly those operating on a co-operative basis. ('National' agencies in the context of the report is used to denote agencies whose collection and distribution of news is mainly national, but which are distinct from government information services.)

The meeting felt that the development of national news agencies might eventually lead to the setting up of regional news agencies which would facilitate the flow of news between the countries of Latin America and to and from the rest of the world. Existing agencies would be invited to co-operate

with these agencies and would in turn benefit from the increased flow of news available to them and the consequent expansion of their own market.

Newspapers and periodicals

The Santiago meeting which highlighted the connexion between economic underdevelopment, illiteracy and the paucity of information services, pointed out that if the present 200 million population of Latin America reaches the estimated 300 million by 1975, this will lead to at least a threefold demand for information services and even more if the literacy campaigns are speeded up. At present, the total circulation of dailies in Latin America is approximately 14.7 million, giving an average of 7.4 copies per 100 inhabitants—well below the minimum set by Unesco; and even though the area is served by 1,154 dailies, 1,630 newspapers appearing less than four times weekly, and 7,860 periodicals, most of these publications are concentrated in the main centres of a few countries and 75 per cent of the total population of Latin America is still practically without news.

In recommending that urgent attention be paid to the development of the rural press, the meeting again called for national and international assistance and advocated the organization of seminars. As a first step in development of the rural press, assistance might be given to the establishment of school newspapers which could be expanded into regular weekly or daily newspapers serving their respective communities. Such publications could be a potent means of education and information for newly literate persons.

Newsprint

Regarding technical facilities, the meeting recommended that a concerted effort be made to increase the local and regional production of newsprint and other printing paper.

Countries of the region were urged to adhere to the Unesco Agreement on Importation of Educational, Scientific and Cultural Materials and to consider extending its provisions to newsprint, printing machinery and other materials essential to the press and other media.

Telecommunications

As a basis for the development of all mass media, the meeting fully endorsed the earliest possible establishment of the Inter-American Telecommunication Network (RIT) which the Organisation of American States (OAS) and the International Telecommunication Union (ITU) are helping to create. The meeting called on the RIT commission to ensure facilities to press, radio and television at the lowest possible cost. Governments were called on to

accord RIT the necessary priority in their plans for economic development.

This network will make it possible to transmit live radio programmes simultaneously to every country in the continent. It will also mean the speedier and more accurate distribution of news dispatches and press photos.

Training

The meeting felt that one of the best ways of promoting the development of the mass media in Latin America would be to improve facilities for the training of all kinds of mass communication personnel, both technical and professional. It therefore recommended that CIESPAL—the centre for higher studies in journalism set up in Quito with Unesco's help—be expanded to train at least three journalism teachers from each Latin American country every year. The Film School at La Plata University, Argentina, would also be helped to organize regional seminars on all aspects of the production, distribution and exhibition of documentaries and children's films. The Latin American Institute for Educational Films (ILCE), might expand its production. Two or more centres might be established in Latin America to train television programme staff. A Latin American Institute of Printing and Graphic Arts could be set up to train senior printing staff. Existing schools of journalism should be encouraged and a regional one set up for Central America.

Qualified staff are needed for the setting up and running of national news agencies, but such staff cannot be trained in the region itself; it was therefore recommended that fellowships for foreign study be granted.

Research

Participants pointed out that little documentation was available in Spanish on mass communication and recommended that CIESPAL be given means to assemble and produce specialized material. Similar work might be undertaken by other institutions, on a regional basis, in the fields of radio, television and film.

Lack of documentation has been responsible for impeding mass communication research, without which no proper development planning is possible. Research is particularly important in adapting recently developed methods and devices to Latin American needs.

Textbooks on specific mass communication questions are urgently needed, and it was recommended that funds be allocated for their selection, translation and publication in Spanish. An editorial board with Latin American participation would direct the programme.

While stressing the importance of covering the needs of the Portuguese, French and English-speaking areas of Latin America, the meeting noted that the existence of a common language—Spanish—in the remaining regions greatly facilitated arrangements for planning and financing co-production and distribution on a multilateral basis.

A regional production and distribution plan for Latin America along these lines was proposed as one of the subjects to be discussed in the course of a seminar on educational films. This seminar, recommended by the meeting, would also consider setting up a central film library for Latin American schools in accordance with Unesco's major project on the extension and improvement of primary education in Latin America.

In carrying out these plans, due attention should be paid to the increased requirements expected as a result of the development of television in Latin America. Incentives to improve production could be provided by holding special festivals and granting awards. It was also felt advisable to promote film clubs and film libraries and to strengthen professional film associations.

Throughout the discussion on these subjects, the experts at Santiago emphasized the necessity for close co-ordination between all media, not only in the interests of their further development but also with a view to their use in educational campaigns. Thus, for instance, in educational programmes for rural areas, combined use could be made of live or recorded radio material with filmstrips and other visual aids. It was noted that carrying out this type of programme implied co-operation on the part of educators and media experts.

The meeting therefore recommended that a seminar of educators, and radio, film and television experts be held to draw up a general plan for the use of these media for educational purposes in Latin America. It would also study the means of setting up audio-visual aid centres and organizing special pilot projects to demonstrate the use of these aids.

The need for bringing existing legislation up to date and adapting it to new conditions in broadcasting as well as in other media was also stressed, and the meeting suggested that a seminar be held to formulate a comparative study of legislation in force.

Similar efforts were recommended in such fields as unification of technical standards, preferably on the basis of ITU regulations, and in exchanges of staff, information material and publications.

Considering the needs of the rural population, the meeting urged the ITU to speed up its study on low-cost radio receivers and to start a new one on the possibility of manufacturing low-cost portable television receivers for such areas. At the same time, it was suggested that the Economic Commission for

Latin America (ECLA) be invited to study the feasibility of manufacturing such receivers in Latin America.

The report and recommendations of the Santiago meeting should have been submitted to the Economic and Social Council at its session held in New York in April.

OFFICE OF THE DIRECTOR-GENERAL

A brief ceremony, at which H.E. Mr. C. Bonifaz Gijon, Ecuadorian Ambassador to Paris, was present, took place in the Office of the Director-General on 8 February. During this ceremony, the instruments of ratification of the Protocol for the Protection of Cultural Property in the Event of Armed Conflict, of the Convention concerning the International Exchange of Publications, and of the Convention concerning the Exchange of Official Publications and Government Documents between States were deposited.

The Director-General visited the United States of America from 11 to 22 February. During his stay in New York, he called on Mr. Dag Hammarskjöld, Secretary-General of the United Nations, with whom he discussed various questions of interest to both organizations.

In Washington, the Director-General met members of the new American Administration, with whom he discussed, in particular, questions relating to the implementation of the educational programmes for Africa and to the International Campaign to Save the Monuments of Nubia. The responsible authorities assured him that they attached the greatest importance to the role of education in economic and social development.

The Director-General was received at the Department of State by Mr. Dean Rusk, Secretary of State. Among those with whom he had talks were Mr. James W. Riddleberger, Director of the International Co-operation Administration (ICA), Mr. Harry Labouisse, appointed as the latter's successor, Mr. H. Cleveland, Under-Secretary of State for relations with international organizations, Mr. Philippe Coombs, Under-Secretary of State for Education and Cultural Affairs, his predecessor, Mr. Robert H. Thayer, Leader of the United States delegation to the eleventh session of the General Conference, Mr. Arturo Morales Carrion, Under-Secretary of State for Inter-American Affairs, and Mr. James K. Penfield, Acting Under-Secretary of State for African Affairs.

The Director-General was received at the Department of Education, Health and Social Affairs by the Secretary, Mr. Hew Ribicoff, and by high officials of the Department.

The Director-General also met Dr. José Mora, Secretary-General of the Organization of American States, Mr. Herrera, President of the Inter-American Development Bank, and Mr. William A. B. Iliff, Vice-President of the International Bank for Reconstruction and Development.

From 13 February to 8 March, Mr. René Maheu, Deputy Director-General, acted as Director-General during Mr. Veronese's absence.

During this period, the Office of the Director-General concentrated mainly on drawing up the Secretariat's final detailed work plans for the implementation of the 1961 programme. This work was done at meetings—presided over by Mr. Maheu—with the competent departments and services, and covered not only the Organization's regular programme, but also the Special Fund projects for which Unesco is executing agency.

Many consultations also took place with experts of different countries and with the governments directly concerned with the execution of Unesco's educational programme for Africa, and particularly with the preparation of the conference to be held at Addis Ababa in May 1961. The Acting Director-General received at Unesco House several Ministers of Education, including Messrs. Ekwabi (Cameroun), Mackpayen (Central African Republic), Ahmed Mangue (Chad), Gandzion (Congo, Brazzaville), Paye (France), Avaro (Gabon), Botokeky (Madagascar), Barral (Mali), Gaye Amadou (Mauritania), Diallo Abdoulaye (The Niger), Sankaredja (Togo) and Charrin (The Upper Volta).

Mr. Maheu discussed with Mr. Leonard Rist, Director of the Economic Department of the International Bank for Reconstruction and Development, the possibilities of active co-operation in the field of education between Unesco and the International Development Association. The Bank's representative was given a memorandum on the contribution of education to economic development.

Lastly, on 15 February, Mr. Maheu discussed with Mr. Seynes, Under-Secretary of the United Nations for Economic and Social Affairs, who was then passing through Paris, certain projects relating to co-operation between Unesco and the United Nations in the field of science and in that of the training of staff for public administration.

Mr. Adiseshiah, Assistant Director-General, went on a mission to Asia and Oceania from 6 January to 11 February. He visited in turn Australia, New Zealand, India, Pakistan and Lebanon.

During his mission, he was received by the President of the Lebanese Republic and by the Prime Ministers of New Zealand and India. In the countries which he visited, he discussed with members of the Governments, as well as with qualified representatives of the National Commissions, universities and other appropriate organizations, questions relating to the implementation of Unesco's programme for 1961-62. In India and Pakistan, his discussions with the competent authorities bore mainly on a number of projects in the field of technical education, for the financing of which these States intend to ask assistance from the Special Fund or from the International Development Association.

During his stay in Australia, Mr. Adiseshiah gave two addresses, one to the Congress of Pan-Pacific and South-East Asia Women's Association, in Canberra, and the other to a seminar of the World Federation of United Nations Associations, at Armidale.

From 11 to 27 February, Mr. Roseman was on mission in Washington, where he accompanied the Director-General in making contacts with the United States authorities.

He also attended a meeting of the Development Assistance Group (DAG), at which an exchange of views took place between the authorities responsible for bilateral aid programmes and representatives of the United Nations and the Specialized Agencies.

Construction of a fourth building on the site of the Organization's permanent Headquarters

In March last, the French authorities agreed to the construction of a fourth building on the site of Unesco's permanent Headquarters in Paris; this construction had been approved by the General Conference of Unesco at its eleventh session. This authorization was brought to the notice of the Headquarters Committee at its thirty-second session on 6 and 7 March.

The committee approved the Director-General's proposal that the execution of the work be entrusted to the three architects who had been responsible for the construction of the present Headquarters buildings, namely Messrs. Marcel Breuer (United States of America), Pier Nervi (Italy) and Bernard Zehrfuss (France).

The fourth building, which is to be constructed at the junction of Avenue de Lowendal and Avenue de Suffren, will comprise 10 storeys and an underground garage for four hundred cars. The total cost anticipated has been fixed at $3,535,000.

The construction of this building, which is expected to be completed at the end of 1963, has been rendered necessary by the considerable increase in the tasks assigned to the Organization, which now has 100 Member States, as against 67 at the time when it was decided to build Unesco House.

EDUCATION

Haitian teachers for the Congo

At the beginning of March, Unesco sent 29 Haitian teachers to the Congo (Leopoldville), thus bringing to approximately 100 the number of specialists which the Organization has already recruited in order to help the Congo to build up and develop its secondary and technical education system and teacher training service.

In addition to Haiti, 10 countries are represented by the teachers—all qualified to instruct in French—who have so far responded to Unesco's appeal: Argentina, Canada, China (Formosa), France, Greece, Italy, Lebanon, Mexico, Norway and Spain.

Besides these teachers, 18 education experts have been recruited within the framework of the United Nations civil operations in the Congo; they will work at the Central Ministry of Education and in Provincial Ministries of Education as advisers on school administration and on the reorganization of the school education system. The specialists already in the Congo include Mr. Abed M'Zali, former Secretary-General of National Education in Tunisia, and Mr. Robert Hennon (France), former Deputy Director of the Unesco Institute for Education in Hamburg. It will be remembered that the Unesco Mission in the Congo is headed by Mr. Maurice Dartigue, former Ministry of Education in Haiti.

The Patzcuaro Centre has already trained over five hundred specialists

Of the part of Mexico bordering on Lake Patzcuaro, some 250 miles west of Mexico City and 7,500 feet above sea-level, the tourist sees only the beauty of the landscape and the quaintness of the traditions, whereas Latin American

educators see—particularly in the 25 to 30 villages scattered on the islands and the banks of the lake—an epitome, as it were, of their continent; for they find there, on a smaller scale, the living conditions common to over half of the population of Latin America, i.e., some 70 million human beings, poor and illiterate.

These 78 square miles of territory consist of tropical lowlands and wooded mountains, rocky islands and fertile plains. The picturesque villages on the five large islands of Lake Patzcuaro are inhabited by fishermen. The peasants cultivate the plains bordering the lake and go in for stockbreeding on the Tarascan plateau towering over the lake. One of these villages is noted for the manufacture of sombreros; some are famous for the embroidering of bodices with cross-stitching, and others for their straw mats. The 14,000 Tarascan Indians and half-breeds living in this area speak a mixture of Indian and Spanish; this is a linguistic problem common to the whole of Central and South America.

It was at Patzcuaro, a peaceful, straggling village situated at the southern end of the lake and serving as a market for the entire region, that Unesco, in May, opened its first education centre for community development. This centre, known as the Regional Fundamental Education Centre for Community Development for Latin America, is an original type of international school. In Spanish, its initials are CREFAL [1] and there is not a single person in the villages who does not know what they mean. This centre is administered by Unesco, but the Government of Mexico and other international organizations, particularly the United Nations, the International Labour Organisation, the United Nations Food and Agriculture Organization and the Organization of American States, help to finance and operate it.

The Patzcuaro Centre has a twofold object: (a) to train teachers in the techniques of adult education, which aims at improving living conditions through action in various fields: rural and domestic economy, public health, arts and crafts, community organization, etc.; and (b) to produce and try out new teaching aids (films, filmstrips, plays, books, posters, etc.), and to give student teachers a training which will enable them, later on, to produce similar teaching aids in their respective countries.

The training course at Patzcuaro is divided into three stages: (a) During the first stage, pupils acquire the theoretical and practical knowledge essential to all specialists in education for community development in the following five fields: health, domestic life, economics, use of leisure time, elementary education and civic instruction. Pupils are also taught methods of producing and using teaching aids (films, filmstrips posters, plays and publications). Shortly after the beginning of this first stage, each pupil specializes in one of these five fields and starts work at one of the five production workshops. (b) The second stage consists of practical work in the 20 experimental communities and the production of the necessary teaching material. In the villages, pupils are split up into teams of five; each team member is specially responsible for one of the basic aspects of education for community development and is attached to one of the five production workshops. The educational work thus carried out in the villages enables pupils to apply their theoretical knowledge in practice. (c) During the third and last stage, pupils appraise the experience they have accumulated, comparing it with adult education as provided in

1. Centro Regional de Educación Fundamental para la América Latina.

Mexico and other Latin American countries. They study the main social and economic problems of this part of the world from the angle of education for community development, and write a thesis on the subject in which they have decided to specialize.

Since it was opened in 1951, the Patzcuaro Centre has trained over five hundred specialists, many of whom now hold posts as administrative directors of education in the various Latin American countries or as directors of education in the various Latin American countries or as directors of international projects for the development of education in this region.

NATURAL SCIENCES

Ritchie Calder, new Kalinga Prize winner

A lifetime spent roaming the world and exploring its scientific frontiers to make them less remote for the general public was honoured when Unesco announced the selection of Ritchie Calder, leading British science writer, as winner of the annual international Kalinga Prize for the popularization of science.

Widely known as a radio and television broadcaster as well as an author, Mr. Calder is the ninth winner of the Kalinga Prize of £1,000 sterling, offered by the Kalinga Foundation created to contribute to economic, social and cultural progress in the Indian state of Orissa.

The purpose of this award, as stated by its donor, Mr. B. Patnaik, an Indian industrialist, is to offer recognition to leading interpreters of science and also to strengthen links between India and scientists of all nations.

The prize is awarded every year by an international jury appointed by Unesco. Its eight previous winners were Louis de Broglie (France), Julian Huxley (United Kingdom), Waldemar Kaempffert (United States of America), Augusto Pi-Suner (Venezuela), George Gamow (United States of America), Bertrand Russell (United Kingdom), Karl von Frisch (Germany and Austria) and Jean Rostand (France).

The members of the jury selecting Mr. Calder were Professor Giuseppe Montalenti of Italy, President of the International Union of Biological Sciences; Mr. Gerard Piel, of the United States of America, publisher of the *Scientific American;* and Professor I. I. Artobolevski of the USSR Academy of Sciences.

Mr. Calder was the candidate of the German Science Writers' Association, and of the American, British and South African Associations for the Advancement of Science. He will receive the award at an official ceremony in Unesco House.

Mr. Calder, who was born in 1906, was science editor of the *News Chronicle* in London from 1945 to 1956 and of the *New Statesman and Nation* from 1945 to 1958. His 15 books on scientific subjects ranging from tropical medicine to the struggle for life in the Arctic have been translated into a dozen languages, including Urdu, Bengali and Swahili. Among them are *Men against the Desert, Men against the Jungle, Science makes Sense* and *Profile of Science.*

He has also been extremely active in organizations created to further the cause of science and the popularization of science. He is a member of the Council of the British Association for the Advancement of Science and a former chairman of its social and international relations division. He is also

a founder-member of the Association of British Science Writers and served as its chairman from 1949 to 1955.

Mr. Calder's name is as familiar in the international world as in the United Kingdom. He has carried out extensive missions for Unesco and for other United Nations Specialized Agencies in order to tell the story of their field work, and he was also a member of the British delegation to the first two sessions of the General Conference of Unesco.

CULTURAL ACTIVITIES

The new International Committee on Bibliography, Documentation and Terminology

This new committee, with extended terms of reference, which replaces the International Advisory Committee on Bibliography (IACB) and the International Committee for Documentation and Terminology in Pure and Applied Science (IACDT), and which is to advise the Director-General, at his request, on questions of documentation, bibliography and terminology in all Unesco's fields of work, will meet in Paris, at the Headquarters of the Organization, probably from 25 to 29 September next.

The main items on the provisional agenda are as follows: Unesco's programme in the fields of bibliography, documentation and terminology for 1961-62 and the outline of a programme for 1963-64; international co-ordination of activities in the fields of bibliography, documentation and terminology—primary publications, secondary publications (abstracts), cataloguing principles and international classification systems, translation questions, the status and professional training of librarians in research libraries and of documentalists; and the development of national bibliographical services.

In accordance with a decision taken by the General Conference of Unesco, the *Monthly Bulletin on Scientific Documentation and Terminology* and *Bibliographical News* have been merged to form the new *Bulletin on Bibliography, Documentation and Terminology*, appearing in English, French, Russian and Spanish. The bulletin is to be a bimonthly publication. Like its predecessors, this bulletin will aim at keeping its readers abreast of international activities in the fields of bibliography, documentation and terminology, and in disciplines related thereto.

The Members of the Council of the International Centre for the Study of the Preservation and Restoration of Cultural Property

The first session of the General Assembly of the International Centre for the Study of the Preservation and Restoration of Cultural Property, which was attended by the representatives of the 20 States at present belonging to it, was held in Rome from 14 to 16 December 1960.

After taking a number of important decisions, which were summed up in the previous issue of the *Chronicle*, the assembly elected five of the nine members forming the centre's council. They are Mr. Frédéric Gysin, President of the Advisory Board of the International Council of Museums (ICOM), Zürich (Switzerland); Mr. Stanislaw Lorentz, Director-General of the State Museums, Warsaw (Poland); Mr. P. Ahmend Sefrioui, Director of Monuments, Arts and Folklore, Ministry of Education, Rabat (Morocco); Mrs. Gertrude Tripp,

Government Curator, Federal Department of Monuments, Vienna (Austria); and Mr. Arthur van Schendel, Director-General of the Rijksmuseum, Amsterdam (Netherlands).

Messrs. Gysin and Lorentz were then elected chairman and vice-chairman of the council respectively. The nomination of Professor H. Plenderleith as director of the centre was confirmed.

A Danish archaeologist's mission in Syria

The best-preserved Roman theatre in the world is to be found at Busra, in Syria, according to Professor H. H. Finsen, a Danish expert in ancient architecture and the restoration of monuments.

A graduate of the university and the Royal Academy of Fine Arts in Copenhagen, Professor Finsen has just returned from the Region of Syria (UAR) where he spent the past year on a mission for Unesco. Previously, he has worked on sites at Messina in Greece, and in Iceland, and has studied at the French School of Athens and in other European institutions.

Busra, a village in the Jebel Ed-Druz, about 85 miles south of Damascus near the Jordan frontier, is a site of great archaelogical interest containing traces of a number of historical periods.

Its name is derived from the Arabic word *busra*, meaning fortress. The inhabitants of the region also call the site Eski Sham, or Old Damascus. The place is mentioned in the Maccabees but its origins go back further, and it was part of the Kingdom of the Nabataeans at the time of its conquest by the Romans under the emperor Trajan. In Trajan's time, many imposing monuments were built, and in 106 A.D. the town, renamed Nova Trajana Bostra, was made capital of the province of Arabia.

Busra remained under Roman influence under the fifth century A.D. and then became a bishopric belonging to the Patriarchate of Antioch. However, after the Muslim conquest, Busra's importance declined. Tradition has it that Mohammed visited the town in his youth and was there told by a monk of his future greatness. Sacked by the Persians, Busra was occuped in 634 by the Arabs who made it a stronghold. At the time of the Crusades, the Turks partially destroyed the town.

Today the site is almost deserted, but many remains exist both of the period before Roman colonization and of those which succeeded it—churches from the early days of the bishopric, Arab monuments of the twelfth and thirteenth centuries, and vestiges of the Turkish citadel. It is, however, the Roman remains which are the chief glory of Busra: surrounding walls, several temples, triumphal arches and two theatres.

One of these, is in an excellent state of conservation. Although it dates from Trajan's time, it is probably better preserved than any other Roman theatre—and for a very good reason: the Arabs made it into a stronghold and surrounded it with a system of fortifications which provided wonderful protection. Incidentally, the Muslim towers which still stand round the theatre are themselves very important remains since they were built with the frustums of columns, a remarkably neat job!

Inside the theatre, a building had been erected which was used as a store or living quarters. It was pulled down five years ago so as to clear the centre of the original amphitheatre. This is a magnificent hemicycle with 9,000 seats.

Professor Finsen, who intends to publish a full account of his researches, has left in Busra four young Danish architects who are carrying on the work.

INTERNATIONAL EXCHANGES

Fellowships for artists and research workers

In December last, the General Conference of Unesco authorized the establishment, under the 1961-62 Regular Programme, of 20 fellowships for writers, composers and artists, 6 fellowships in information processing and automatic computation, and 20 fellowships in marine sciences, which are to be offered in open competition to all Member States.

The purpose of the first 20 fellowships is to encourage international understanding and contribute towards the enrichment of the cultural heritage of the different peoples through the direct contacts which the holders of these fellowships can establish with the creative artists of the countries they visit. These fellowships are reserved for writers, composers, painters, sculptors and engravers.

The object of the six following fellowships is to enable highly qualified specialists to undertake research abroad, for a period of six months, in one of the two following fields: mechanical translation; reduction of geophysical data.

The last 20 fellowships are intended to promote research in the following fields: physical and chemical oceanography, marine biology, maritime meteorology, submarine geology and topography, and also limnology (physico-chemical and biological aspects) when research in this field is calculated to yield results applicable to marine research.

THE INTERACTION OF SCIENCE AND SOCIETY

Since 1950, Unesco has been publishing, in English and French, a quarterly periodical, *Impact of Science on Society*,[1] dealing with the various aspects of science and its social implications. The tenth anniversary of this publication provided Mr. François Le Lionnais, President of the Association des Ecrivains Scientifiques de France and former Chief of Unesco's Division of Teaching and Dissemination of Science with the opportunity to draw attention, in an introduction to the index of articles published in *Impact* between 1950 and 1960, to the value of this periodical and the importance of the questions which have already been reviewed therein. Mr. Le Lionnais writes as follows:

'From Pithecanthropus, who appeared on earth half a million years ago and was already familiar with fire and the art of chipping stone tools, to the intrepid astronaut of tomorrow who will plant the banner of mankind on the face of the moon, the whole history of our civilizations has been essentially conditioned by two factors—scientific development and social progress. Though it has been operative at all times, never before has this dual influence weighed so heavily in the balance of man's destiny.

'It is surely obvious that man, though the events in his history are often tragic and agonizing (even if it is to be hoped that the historian of the future will see them merely as so many crises overcome), is advancing towards greater freedom as regards both national independence and social organization. A certain kind of world unity has already been achieved, not, it is true, in economic and political organization or in men's sympathies but at least in the fact that the entire planet can now become aware—thanks to aviation, press and radio—of what is going on in its remotest corners.

'The dramatic increase in our scientific knowledge since the beginning of the second world war is even more impressive and maybe more fraught with consequences than are the social developments of the same period. It is perhaps not generally known that there are in the world today some ten times more research workers than there have ever been in all the rest of human history put together: in other words, 90 per cent (in round figures) of all the scientists who have ever lived are still alive at this moment—a fact which can scarcely fail to revolutionize the fate of mankind.

'But this is not all. It is generally admitted, or at any rate it is not disputed, that these two driving forces in human evolution are interactive. Sooner or later the pace and the nature of scientific discovery, at any time, give rise in ensuing

1. Annual subscription: $1.75; 9/6; 4.50 NF. Per copy: $0.50; 2/6; 1.25 NF.

periods to the adoption of new techniques; and eventually, by way of innovations in agriculture and industry, transport and trade, medicine and education, the whole of our everyday, individual, family, professional and political life is transformed. Conversely, man's conception of science and the power of science changes with the society in which he lives. The attitude towards scientists, the material aid and financial backing given to them and the influence they are acknowledged to wield inevitably affect their creativity. There is thus a two-way flow between science and society.

This dialectical interchange between science and society does not, however always proceed smoothly, for the two systems are profoundly different both in nature and as regards their capacity for rapid change. Serious lagging behind, in some cases, or dangerous rushing forward, in others, may throw the whole of the machine out of gear, giving rise to all kinds of misgivings, some of them perfectly justified, others naively exaggerated. There are plenty of serious-minded people who find it regrettable that the leaders of nations and societies cannot adapt their countries to the acceleration of scientific progress; while others sometimes complain that science fails to take account of human nature, and is bearing our species to destruction. It must be evident to all that it is vitally important to be able to bring science and society into harmony by acting on their structures and the course of their development. To find a means of doing this is probably one of the major tasks of our time.

'It cannot be done without acquiring a better understanding of the forces at work and their points of impact. There have, it is true, already been a fairly large number of books, articles and surveys drawing attention to these questions; but they have been in the nature of preliminary soundings, unco-ordinated, and with no general plan behind them. What is wanted is a new discipline, a branch of scientific study, of course, but distinct both from the traditional sciences—mathematics, physics, chemistry, biology, psychology and social science—and from economic and political practice. A review such as *Impact* gives us a first sketch of such a discipline, destined to play a vital role in the future, in which some outline of what it is likely to become can already be discerned.

'A glance at the index of articles published in the past 10 years shows that all the main problems which dominate our age and which will have to be solved in the fairly near future have already been brought up on its pages.

'Hunger in the world, disease, the replacement of physical labour by the use of sources of natural energy and of brain work by 'thinking' machines, the new tasks which will sooner or later take the place of activities for which there will be no need in future, and, finally, the general theme of the interaction of science and society and the need for bringing the two into harmony—this analysis of the present gives us a wide prospect of the future. Here again, it is instructive to look at the complete collection of *Impact*. Cybernetics, automation, electronic computers and information-processing machines, machine translation, operational research, nuclear energy and radio-isotopes, solar energy, new materials, astronautics, reclamation of arid lands, mechanisms of photosynthesis, cultivation of the alga Chlorella, soilless cultivation, antibiotics, experimental embryology and genetics as a means of transforming the physical and mental capacities of the man of the future—none of these subjects could conceivably have figured in scientific books or periodicals a quarter of a century ago. And how can we doubt that the progress of science and the achievements of technology in the decade to come will be every whit as enthralling? Scientists and thinkers of world renown, such as Sir Eric Ashby, Louis Armand, Pierre Auger, Niels

Bohr, Lord Boyd-Orr, Louis de Broglie, Albert Einstein, Lord Halsbury, A. I. Oparin, R. Oppenheimer, Jean Rostand, Bertrand Russell, and others, have contributed to this great undertaking. The fact that their names appear in the table of contents of *Impact* is proof of their interest in our review, and of the importance they attach to the problem of the interaction of science and society. This interest is further emphasized by the quotations from *Impact* and the very favourable comments on it contained in the world press, including *El Comercio* (Lima), *Commerce* (Bombay), *Discovery* (London), *Information* (Paris), *Humanité* (Paris), *Le Monde* (Paris), *Nature* (London), *New York Times* (United States of America), and *Politiken* (Copenhagen), not to mention various specialized journals which have reprinted several articles.

'National Commissions for Unesco, as well as other organizations—national, international, governmental and non-governmental—have likewise shown a keen interest in *Impact*, and have urged that every possible effort be made to increase its circulation.'

The list of the articles published in the last three numbers of this periodical alone suffices to show the variety and present-day interest of the questions with which it deals.

The first of these numbers (Vol. X, No. 3) contains an article on the Royal Society (on the occasion of the tercentenary of this famous institution), an article on atmospheric and water pollution owing to industrial development, and an article on current trends in science policy in the United States of America.

The second number (Vol. X, No. 4) contains four long articles dealing respectively with earthquakes, the role of scientific research in the development of tropical regions, alternate uses of water supplies in arid lands, and chemical means of plant protection.

The third number (Vol. XI, No. 1) also contains four articles; 'Recent developments in animal breeding in hot climates'; 'Forestry—a world problem'; 'Arid zones and social changes'; 'Management in a modern scientific and technological age'.

News of the National Commissions

Canada. Some two hundred delegates, observers and guests attended the Second National Conference of the National Commission, held in Toronto from 22 to 24 February last. The theme of the conference was 'New dimensions in international relations'. The subjects discussed included education and economic development, educational and cultural exchanges and study abroad, international co-operation in adult education, international assistance to the developing nations, and international co-operation in science.

The National Commission recently published under the title of *Dialogue 1960: Asia and the West*, the report of the regional conference organized, under its auspices, at the University of British Columbia, Vancouver, from 31 March to 2 April 1960. The texts contained in this publication include a lecture by H.E. Mr. L. N. Palar, Indonesian Ambassador to Canada, on 'Asian attitudes towards the West', and a statement by Mr. Ross McLean, Research Director, Board of Broadcast Governors and former head of the Unesco Film Service, on 'Canada's role in Unesco's East-West project'.

With the assistance of the National Commission, the Canadian Broadcasting Corporation and the Canadian Adult Education Association organized a series of broadcasts on the subject of 'South-East Asia: a different culture'. Four half-hour programmes were devoted respectively to the differing attitudes of Eastern and Western peoples towards family relationships, religious beliefs, education, work and leisure. Interviews with people from five Asian countries were recorded for these programmes, and the recordings will be used by the Canadian Adult Education Association as a basis for discussion at the meetings which it organizes regularly in various parts of Canada.

Czechoslovakia. The National Commission and the Economic Institute of the Czechoslovak Academy of Sciences organized in Prague, in December 1960, a seminar on the 'International division of labour as a factor in the development of exchanges between countries with different economic systems'. Experts from 18 countries took part in this seminar.

France. The last number of *L'Unesco et ses amis*, the information bulletin of the Fédération de clubs d'études et de relations internationales et des groupements d'amis de l'Unesco in France, contains, in particular, some 'reflections on the social aspects of the industrialization of countries in process of development', one of the last articles written by the philosopher, Gaston Berger, who was chairman of the French National Commission and who was killed in a motor-car accident on the eve of the General Conference of Unesco in November 1960.

Gaston Berger, author of a thesis on *Le cogito dans la philosophie de Husserl*

and a professor at the University of Aix-en-Provence, also showed himself to be an excellent administrator in the capacity of Director-General of Higher Education. He died shortly after giving up this post in order to devote his time to research, particularly in what he called the field of 'prospective', i.e., the study of the human implications of foreseeable events. This gives an idea of the importance of the 'reflections' published in *L'Unesco et ses amis*.

Hungary. The National Commission's Scientific Sub-Committee and East-West Sub-Committee held a joint meeting on 21 February last in the assembly hall of the Praesidium of the Hungarian Academy of Sciences. It was decided to set up a 'Committee for Nubia', consisting of several archaeologists, in order to assist Unesco's campaign to save the monuments of that region. The members of these two sub-committees also studied reports concerning the last session of the General Conference.

India. A seminar on 'Educational methods to promote understanding of other cultures', sponsored by the National Commission, took place at Udaipur, Rajasthan, from 25 to 30 December 1960. This meeting of educators, which was organized in connexion with the East-West major project, also provided the opportunity for an exchange of views on the operation of the 'Associated Schools'.

Ireland. Since last year, a committee of 10 persons, including educators, has been publishing a bulletin containing reviews of Unesco publications.

Korea. A seminar organized by the National Commission last November studied Korea's participation in the implementation of the East-West major project. One hundred and eighty persons attended this seminar, which was presided over by Mr. Chun Suk Auh, Minister of Education and chairman of the National Commission.

Poland. The three hundredth anniversary of the publication of the first number of *Polski Merkury*, the oldest Polish periodical, was commemorated in Warsaw on 3 January last. Celebrations of this anniversary will include, during the year, the holding of exhibitions illustrating the history of the press, in all the largest Polish cities. Many meetings between journalists and readers will also be organized.

The Institute of Musicology of the University of Warsaw will organize a seminar in March 1962 to commemorate the twenty-fifth anniversary of the death of the composer Karol Szymanowski (1882-1937).

Turkey. Mr. Hasan Ali Yücel, former Minister of Education and a member of the National Commission, has just died at the age of 64. He took part in the London conference which adopted the Constitution of Unesco, and signed the instrument of acceptance on behalf of his country. Mr. Yücel was a member of the Turkish delegation to the last session of the General Conference.

News of international non-governmental organizations

Unesco to aid the International Astronautical Federation

On 8 March, Mr. René Maheu, Acting Director-General of Unesco, received a visit from Professor Leonid Sedov, a member of the Academy of Science of the USSR and President of the International Astronautical Federation. The object of Professor Sedov's visit was to sign a contract under which Unesco will render financial assistance to help prepare a symposium on the subject of 'Man in space' to be held in 1963. Unesco will also assist young scientists in attending the federation's congress this October in Washington.

The peaceful aspects of space research were stressed in the meeting between Profesor Sedov and Mr. Maheu and also in a statement by Professor Sedov, in which he declared:

'Space research up to now has yielded only peaceful results and we would like to see this same purpose maintained in the future. It is of great importance that Unesco should help scientists to collaborate in all spheres and, particularly, in space research.'

Then Mr. Sedov added: 'The International Astronautical Federation was founded as a society of scientists and engineers pursuing peaceful aims. We would like to receive help from Unesco in our activities . . . and this first contract is certainly a contribution to the further development of our work'.

The signing of this contract follows the approval by the General Conference of Unesco last December of a small-scale programme of aid to two leading international organizations concerned with space research: the Federation and the Committee on Space Research of the International Council of Scientific Unions. This programme also calls for aid to the federation in preparing a multilingual handbook (in Russian, English, German, French, Italian and Spanish) of some 50,000 terms used in space research.

Support for ICSU's Committee on Space Research is to take the form of aid in organizing specialized symposia this year and next in three fields: precision tracking and telemetering methods; ultra-violet astronomical observations which cannot be made from the ground; and effects if high temperature and vacuum on small biological organisms.

Establishment of an International Union of Geological Sciences

An International Union of Geological Sciences, with members from 30 countries, was established following a meeting held on 9 and 10 March at Unesco House in Paris.

Geologists from 25 countries met on those two days in a constitutive assembly to set up the union on the basis of a proposal adopted by the twenty-first

International Geological Congress which met last year at Copenhagen.

The assembly adopted the statutes of this new international scientific union and also elected officers of its executive committee. They include: Mr. J. M. Harrison, head of the Geological Survey, Ottawa, Canada, president; and six vice-presidents—Messrs. I. I. Gorski (USSR), L. Hawkes (United Kingdom), Teichi Kobayashi (Japan), Lamego (Brazil), Jean Lombard (France), and B. C. Roy (India). Messrs. Theodor Sorgenfrei of Denmark and Johannes Dons of Norway were elected secretary and treasurer respectively.

The Paris meeting also chose several topics of world interest for possible consideration by the union in its future programme. They included the origin of oil and gas, a world geochronological scale, the origin of hydrothermal mineral deposits, and the conditions leading to ore concentrations. A stress was placed on problems of economic importance in this choice.

A world geophysical calendar

During the International Geophysical Year in 1957-58, organized under the auspices of the International Council of Scientific Unions with the assistance of Unesco, scientists all over the world collaborated in gathering information about the earth, by carrying out experiments and making observations thousands of miles apart, the results of which were afterwards compared and evaluated.

So fruitful has this co-operation proved that an International Geophysical Calendar has now been drawn up in which certain days and periods during each year are designated for the carrying out of geophysical experiments and observations. Three consecutive days in the middle of each month are set aside for the study of solar phenomena and meteor showers as well as activities related particularly to atmospheric geophysics, including research on aspects of cosmic rays, meteorology, airglow, the ionosphere, geomagnetism, etc. In addition, 10-day periods known as Regular World Intervals are selected in each quarter year at the times of the equinox and solstice, during which data is gathered on phenomena such as ionospheric drift and high atmosphere wind measurement. A further 10-day period in each quarter is devoted to observation of meteorological phenomena which often occur about a month after the equinoxes and solstices, and also for meteorological rocket experiments and balloon-sounding programmes.

Two dates of special importance to scientists which figure in the 1961 calendar are the total solar eclipse on February 15 and the annular solar eclipse on August 11. Special programmes are being planned in regions where these phenomena can best be observed to study eclipse effects on the earth's atmosphere.

Obviously only those dates which can be planned long in advance or reliably predicted, as in the case of eclipses and meteor showers, are shown in the calendar. For more unexpected phenomena, such as magnetic, auroral and ionospheric disturbance, where world-wide observations are also of great value, warnings are given by telegram or radio broadcast from regional warning centres in Japan, the USSR, Federal Republic of Germany, the Netherlands, France and the United States. Messages are also given out daily by the World Meteorological Organization's telecommunications network.

PROVISIONAL TIME-TABLE OF CONFERENCES, MEETINGS AND SEMINARS FOR 1961

1. *This is a time-table of conferences, meetings and seminars convened or subsidized by by Unesco for 1961.*
2. *This time-table does not include meetings convened by the United Nations, the Specialized Agencies, and various international organizations, to which Unesco has been invited to send representatives or observers.*
3. *Meetings subsidized, though not convened, by Unesco are marked by an asterisk in the margin.*
4. *Any changes in the time-table will be notified in later issues of the* Unesco Chronicle.

Date		*Place*
JANUARY		
8-18	International Consultative Committee of Experts attached to the Government of the United Arab Republic for the International Campaign to Save the Monuments of Nubia (with the financial help of Unesco).	CAIRO
12-13	Selection Committee—Study Tours for European Workers.	UNESCO
16-21	Meeting of Experts on Teaching of Elements of the Social Sciences at the pre-University Level.	HAMBURG
18*	Meeting of Representatives of the International Union of Publishers and of the International Bureau of Mechanical Edition, to examine the means of facilitating the circulation of contemporary music.	UNESCO
25	Meeting of the Joint Unesco/International Association of Universities Steering Committee.	UNESCO
26-28*	Administrative Board of the International Association of Universities.	UNESCO
31	Working Party of International Non-Governmental Organizations on 'Youth faces the modern world'.	UNESCO
FEBRUARY		
1-2	Working Party of International Non-Governmental Organizations on 'Extension of international collaboration in education, science and culture to the countries of Africa'.	UNESCO
1-6	Italian-Yugoslav Meeting on the Social Consequences of the Development of Underdeveloped Regions (convened by the Italian National Commission for Unesco under the Participation Programme).	NAPLES
1-14	Meeting of Experts on Development of Information Media in Latin America.	SANTIAGO (Chile)
1-14	Seminar for African Workers.	RABAT
3	Committee elected by the Seventh Conference of Non-Governmental Organizations.	UNESCO
3	Inter-Agency Meeting for the Preparation of the Inter-African Conference on Education.	UNESCO
10	Consultative Editorial Board of *Museum*.	UNESCO
20-21*	Publications Committee of the International Theatre Institute (with the financial help of Unesco).	PARIS

Date		*Place*
27-3 March	Meeting of Experts on the Prevention of Racial Prejudice Project in Parental Education (convened by the Youth Institute of Gauting with the financial help of Unesco).	GAUTING
27-28*	Bureau of the International Commission for a *Scientific and Cultural History of Mankind.*	UNESCO
MARCH		
1-2	Drafting Committee of the International Computation Centre.	UNESCO
3-4*	Executive Committee of the Council for International Organizations of Medical Sciences.	UNESCO
6-7	Headquarters Committee.	UNESCO
7-16	Regional Seminar on Scientific Documentation.	NEW DELHI
9-10	Meeting for the Creation of the International Union of Geological Sciences (with the financial help of Unesco).	UNESCO
13-25	FAO/Unesco Working Group on an International Handbook on Irrigation and Drainage in Arid Lands.	WAGENINGEN (Netherlands)
20-21*	Executive Committee of the International Theatre Institute.	UNESCO
28-31*	Executive Committee of the International Association of Plastic Arts.	UNESCO
29*	Executive Committee of the International Council for Physical Education and Sports.	UNESCO
30-31*	Interim Executive Committee of the International Social Sciences Council.	UNESCO
Dates not fixed	Training Expedition for the Study of Tropical Vegetation (convened by the South-East Asia Science Co-operation Office).	INDONESIA
Dates not fixed	Preparatory Meeting of Experts on the Latin American Project for the Andine Region (convened by the Latin America Science Co-operation Office).	BUENOS AIRES
APRIL		
4-6*	Conference of Internationally-Minded Schools.	UNESCO
6-12	International round-table discussion on the theme 'Preservation of the traditional forms of classical and popular music in the countries of East and West' (convened by the Iranian National Committee of the International Music Council with the financial help of Unesco).	TEHERAN
7-8	Executive Board: *Ad hoc* Working Party (sub-group I)	UNESCO
10-12	Executive Board: *Ad hoc* Working Party (sub-group II).	UNESCO
10-15	Meeting of Consultants on the Preparation of the *International Guide to Education Documentation* (convened by the Latin America Science Co-operation Office).	UNESCO
13-15*	Meeting of the World Organization for Early Childhood Education.	UNESCO
17-19 tentative	Working Group on the effects of Outside Aid given to Countries undergoing Rapid Development.	UNESCO
17-21	Meeting of Experts on International Standardization of Statistics on Book Production and Periodicals.	UNESCO
18-20	Executive Board: *Ad hoc* Working Party (sub-group III).	
18-21	Working Group on the International Survey of Social Implications of Industrialization.	STOCKHOLM
24-28	International Action Committee for the International Campaign to Save the Monuments of Nubia.	UNESCO

Date		*Place*
27-28	Discussion on Documentation in the Natural Sciences.	UNESCO
Dates not fixed	Training Course in Chemistry (convened by the South-East Asia Science Co-operation Office).	SINGAPORE
Dates not fixed	Visiting Committee for Tropical Herbaria.	LEIDEN (Netherlands)
MAY		
10-18	Working Party of FAO/Unesco Advisory Group on Establishment of World Soil Map.	ROME
12-14*	Symposium on Social Development convened by the French National Commission and the Ecole Pratique des Hautes Etudes under the Participation Programme.	UNESCO
15-19	Meeting of Representatives of Broadcasting Organizations for selection of the Works to be played at the International Rostrum of Composers (convened by the International Music Council with the financial help of Unesco).	UNESCO
15-25	Inter-African Conference on Education (convened jointly by the United Nations Economic Commission for Africa and Unesco).	ADDIS ABABA
17-24	Executive Board: *Ad hoc* Working Party.	UNESCO
19-27	Meeting on Action of Latin American Film Clubs and Film Libraries for the Development of the Cinema (convened by Columbianum with the financial help of Unesco).	SANTA MARGHERITA (Italy)
21-25*	Round-table of the International Council on Archives (with the financial help of Unesco).	WARSAW
23-27*	Meeting of Experts on Museums and Architecture (convened by the International Council of Museums, with the financial help of Unesco).	TURIN
25-31	Executive Board, fifty-ninth session: External Relations Commission.	UNESCO
25-31	Executive Board, fifty-ninth session: Administrative Commission.	UNESCO
29-3 June tentative	Meeting on the Development of Educational Broadcasting in Africa.	DAR-ES-SALAAM (Tanganyika)
May (end)	Italian-Yugoslav Meeting on the Social Consequences of the	SKOPLJE
May*	Development of Underdeveloped Regions (convened by the Yugoslav National Commission for Unesco under the Participation Programme).	(Yugoslavia)
May*	Executive Committee of the International Music Council.	UNESCO
May*	Editorial Board of the journal *Diogenes* (convened by the International Council for Philosophy and Humanistic Studies, with the financial help of Unesco).	Not fixed
May (end)	Meeting of Experts on the Establishment of a Latin-American Physics Institute in Brazil (convened by the Latin America Science Co-operation Office).	MONTEVIDEO
JUNE		
1-16	Executive Board: fifty-ninth session.	UNESCO
5-11*	Ninth Congress of the International Theatre Institute (with the financial help of Unesco).	VIENNA
5-15 tentative	Commission of Experts for International Study of University Admissions.	BEIRUT
12-14	Meeting of Experts on the Automatic Processing of Geophysical Data.	PARIS

Date		*Place*
12-17*	General Assembly of the International Academic Union (under the auspices of the International Council for Philosophy and Humanistic Studies).	STOCKHOLM
12-24	International Committee for the Advancement of Adult Education.	UNESCO
19-24	Advisory Committee of the Major Project on Mutual Appreciation of Eastern and Western Cultural Values.	UNESCO
20-24	Study Group on the Protection of Rights in Cinematographic Works (convened jointly by Unesco and the Berne Union).	GENEVA
21	Working Party of International Non-governmental Organizations on 'Extension of international collaboration in education, science and culture to the countries of Africa'.	UNESCO
22	Committee elected by the Seventh Conference of Non-Governmental Organizations.	UNESCO
22-28*	Fourth International Conference and General Assembly of the International Society for Music Education (with the financial help of Unesco).	VIENNA
24-15 July	Latin American Seminar on Cosmic Rays Research (convened by the Latin America Science Co-operation Office).	MEXICO CITY
25-30	Seminar on Comparative Research on Citizens' Participation in Social and Political Life (convened under the Participation Programme).	BERGEN (Norway)
27-28 tentative	FAO/Unesco Study Group on Forestry and Grazing Policies in Arid Zones.	UNESCO
Dates not fixed	Meeting of Experts on Soil Biology.	UNESCO
Dates not fixed	Working Party on the Indian Ocean (convened by the Special Committee on Oceanic Research, with the financial help of Unesco).	UNESCO
JULY		
1-15 tentative	Refresher Course for English-speaking Economists in Africa (convened by the International Economic Association under the Technical Assistance Programme).	ADDIS ABABA
1*	Bureau of the International Federation for Modern Languages and Literature (with the participation of the International Council for Philosophy and Humanistic Studies).	UNESCO
3-14	Twenty-fourth International Conference on Public Education (convened jointly by Unesco/IBE).	GENEVA
10-13	Working Group on the Collection, Analysis and Dissemination of Seismological Data (convened by Unesco and the International Union of Geodesy and Geophysics).	UNESCO
11-14	Meeting of Educational Publishers.	GENEVA
31-5 August	Meeting of Directors of Audio-visual Services in South-east Asia.	KUALA LUMPUR (Malaya)
10 days	Seminar for Young Teachers on Education for International Understanding (convened by the Swedish National Commission under the Participation Programme).	STOCKHOLM
Dates not fixed	Seminar on Seismology (convened by the Latin America Science Co-operation Office).	TOKYO

Date		*Place*
Dates not fixed*	General Assembly of the International Association of Art Critics (with the financial help of Unesco).	MUNICH AND BERLIN
AUGUST		
2-4	Executive Committee of the International Brain Research Organization.	UNESCO
14-18	International Advisory Committee for Humid Tropics Research.	HONOLULU
14-19	Seminar on Standardization and Intercalibration of Apparatus (convened jointly by the Special Committee on Oceanic Research and Unesco).	HONOLULU
14-25	Latin American Meeting on Higher Agricultural Education (convened jointly by Unesco/FAO and Inter-American Institute of Agricultural Sciences).	QUITO
21-25	Symposium on Man's place in the Island Ecosystem (convened by the Pacific Science Council, with the financial help of Unesco).	HONOLULU
21-26	International Round-table Discussion on the theme 'Origin of Man in America' (convened by the Educational Scientific and Cultural Institute of Brazil, with the financial help of Unesco).	SAO PAULO
21-26*	International Congress of Comparative Literature (convened by the International Federation for Modern Languages and Literature, under the auspices of the International Council for Philosophy and Humanistic Studies, with the financial help of Unesco).	UTRECHT
27-15 Sept.	Meeting of Experts on Methods and Techniques of Parallel Research.	BANGKOK
31-9 Sept.	Annual Colloquium on International Trade in a Developing World (convened by the International Economic Association, with the financial help of Unesco).	BRISSAGO (Switzerland)
August or September	International Round-table Discussion on the theme 'Humanism and culture in the world today' (convened by the Polish National Commission, with the financial help of Unesco).	WARSAW
SEPTEMBER		
4-7	Meeting on Problems of Laboratory Animal Diseases (convened by the International Committee on Laboratory Animals, with the financial help of Unesco).	PRAGUE
4-7*	Council of the International Federation of Library Associations (with the financial help of Unesco).	EDINBURGH
4-9	South Pacific Commission's Urbanization Advisory Committee (convened by the South Pacific Commission, with the financial help of Unesco).	HONOLULU
6-11*	Eighth International Congress of Musicology (under the auspices of the International Council for Philosophy and Humanistic Studies and the International Music Council, with the financial help of Unesco).	NEW YORK
7-12*	Twentieth International Congress of the History of Art (under the auspices of the International Council for Philosophy and Humanistic Studies).	NEW YORK
7-15*	Annual Meeting of the International Federation for Documentation (with the financial help of Unesco).	LONDON

Date		*Place*
8-9	International Committee on Laboratory Animals (with the financial help of Unesco).	PRAGUE
11*	Executive Committee of the International Social Science Council.	UNESCO
12-16*	Round-table on Social Premises of Economic Development and Planning Meeting (convened by the International Social Science Council, with the financial help of Unesco).	UNESCO
13-22	Intergovernmental Oceanographic Commission.	UNESCO
15-28	Regional Seminar for Asia and Oceania on the International Standardization of Educational Statistics.	TOKYO
16*	General Assembly of the International Social Science Council.	UNESCO
18*	Executive Committee of the International Social Science Council.	UNESCO
19-20*	Round-table of the International Social Science Council on Institutional Means of Collaboration between the Social Sciences on National and Regional Levels.	UNESCO
21-23	Liaison Committee of International Organizations in the Field of Arts and Letters.	ATHENS
25-29	International Advisory Committee on Bibliography, Documentation and Terminology.	UNESCO
25-30	Intergovernmental Copyright Committee (convened jointly by the Spanish Government and Unesco).	MADRID
25-30	Committee of Experts charged with the Formulation of Recommendations relating to the Programme of the Tokyo Centre for Research on the Civilizations of East Asia (with the financial help of Unesco).	TOKYO
26-30*	Fifth International Congress of Political Science (convened by the International Political Science Association).	UNESCO
30	Advisory Committee on Arid Zone Research.	ROME
Dates not fixed	Working Party on the Indian Ocean (convened by the Special Committee on Oceanic Research, with the financial help of Unesco).	Not fixed
Dates not fixed	Discussion on Documentation in the Natural Sciences.	UNESCO
Dates not fixed	Round-table on Economic Progress in Africa (convened by the International Economic Association and the United Nations Economic Commission for Africa, with the financial help of Unesco).	ADDIS ABABA
Dates not fixed	Executive Committee of the International Campaign to Save the Monuments of Nubia.	UNESCO
Dates not fixed	Seminar on Problems of Women's Education (convened by the South Pacific Commission, with the financial help of Unesco).	APIA (Western Samoa)
Dates not fixed	Symposium on Phytochemistry (convened by the Latin America Science Co-operation Office).	HONG KONG
Dates not fixed	Seminar on Cell Biology Research (convened by the Middle East Science Co-operation Office).	ISTANBUL
Dates not fixed	Meeting of Experts on Co-operation between Countries with Different Economic and Social Structures in the Sphere of Foreign Aid.	WARSAW
Dates not fixed	Meeting on African Films and Films on Art and Culture in Africa (convened by the CINI Foundation, with the financial help of Unesco).	VENICE

Date		*Place*
OCTOBER		
1-3*	General Assembly of the Council for International Organizations of Medical Sciences.	UNESCO
2-7	Unesco/World Meteorological Organization Symposium on Changes of Climate with special reference to Arid Zones.	ROME
1-21	Training Course in Mycology (convened by the Latin America Science Co-operation Office).	RECIFE (Brazil)
2-9	Advisory Committee on Arid Zone Research.	ROME
2-5	Meeting of Experts on Terminology and Methodology of the Organization and Financing of Scientific Research.	UNESCO
2-7	Expert Meeting on Case Study Methods in Urbanization.	UNESCO
3-8*	Meeting of ICOM Commission for Museum Laboratories and the ICOM Commission for the Care of Paintings (with the financial help of Unesco).	BARCELONA
3-31	Training Course on Tropical Limnology (convened by the South Asia Science Co-operation Office).	BARRACKPORE (India)
4-9*	General Assembly of the International Council for Philosophy and Humanistic Studies (with the financial help of Unesco).	TOKYO
8-18	International Seminar on Educational Television (convened by the United States National Commission for Unesco, with the financial help of Unesco).	LAFAYETTE (USA)
9-11	Meeting of Experts on Automatic Languages Translation.	UNESCO
9-18*	International Conference on Cataloguing Principles (convened by the International Federation of Library Associations, with the financial help of Unesco).	UNESCO
9-25	Diplomatic Conference on the International Protection of Performers, Producers of Phonograms and Broadcasters (convened jointly by Unesco/ILO/Berne Union).	ROME
10-14	Meeting of Consultants for the Cell Biology Programme.	ISTANBUL
12-20	Symposium on Methods of Evaluating Resources of Underground Water with emphasis on Arid Zone Problems (convened by the International Association of Scientific Hydrology, with the financial help of Unesco).	ATHENS
Mid-October to Mid-November	Executive Board: sixtieth session.	UNESCO
16-21	International Advisory Committee on Research in the Natural Sciences Programme of Unesco.	NEW DELHI
23-27 (tentative)	International Committee on Monuments, Artistic and Historical Sites, and Archaeological Excavations.	NEW DELHI
23-15 Nov.	Training Course in Marine Biology (convened by the Latin America Science Co-operation Office).	BAHIA (Brazil)
23-19 Nov.	Regional Training Course on the Prospection and Evaluation of Underground Water Resources (convened by the Middle East Science Co-operation Office).	TUNIS
Tentative	International Information Meeting on Improvement of Living and Working Conditions (convened by the Conservatoire National des Arts et Métiers under the Participation Programme).	PARIS (tentative)
Dates not fixed	International Round-table Discussion on the theme 'Concurrence in one place of great cultures of East and West' (convened by the Spanish National Commission, with the financial help of Unesco).	CORDOVA (Spain)

Date		*Place*
Dates not fixed	Meeting of International Consultative Experts concerning the Safeguarding of the Monuments of Nubia (convened by the Government of Sudan, with the financial help of Unesco).	KHARTOUM
Dates not fixed	Regional Course for the Theoretical and Practical Training of Geologists.	AFRICA
Tentative	Regional Meeting on Techniques of Evaluation.	UNITED ARAB REPUBLIC (EGYPT)
Dates not fixed*	Publications Committee of the International Theatre Institute.	UNESCO
Dates not fixed (12 days)	Regional Seminar for South and East Asia on Associated Schools Projects in Education for International Understanding (convened by the Japanese National Commission under the Participation Programme).	TOKYO
Dates not fixed (3 days)	Working Party on the *Catalogue of Colour Reproductions of Paintings prior to 1860.*	UNESCO
Dates not fixed (3 weeks)	Regional Seminar on Methods of Training in Journalism in South-East Asia.	MANILA
Dates not fixed	Meeting of Experts on the Establishment of a Latin American Physics Institute in Brazil (convened by the Latin America Science Co-operation Office).	RIO DE JANEIRO
Dates not fixed*	Executive Committee of the International Theatre Institute.	UNESCO
Dates not fixed	Meeting on Training Facilities in Geology and Mining in South and South-East Asia (convened by the South-East Asia Science Co-operation Office).	BANGKOK
Dates not fixed (2 weeks)	Regional Technical Assistance Meeting on Teaching of Basic Sciences in Universities (convened by the South-East Asia Science Co-operation Office).	MANILA
Dates not fixed	Meeting of Directors of Scientific Institutions to discuss their needs for laboratory technicians (convened by the South Asia Science Co-operation Office).	LAHORE
Dates not fixed	Training Course in Genetics (convened by the South-East Asia Science Co-operation Office).	TOKYO
NOVEMBER		
8-11	Meeting on Amplification Techniques in Cell Biology (convened by the International Society for Cell Biology, with the financial help of Unesco).	LONDON
15-17	Committee of Experts to examine the Programme for the Translation of Representative Works (convened by the International Council for Philosophy and Humanistic Studies, with the financial help of Unesco).	UNESCO
27-3 December	Third Meeting of National Commissions of the Western Hemisphere (convened by the National Commission of Argentina, with the financial help of Unesco).	BUENOS AIRES
Dates not fixed (4 weeks)	Regional Training Course in Marine Sciences (convened by the Middle East Science Co-operation Office).	CASABLANCA
Dates not fixed	International Round-Table Discussion on the theme 'Influence of R. Tagore in the East and West' (convened by the Indian National Commission, with the financial help of Unesco).	INDIA

Date		*Place*
Dates not fixed	Regional Seminar on Oceanographic Studies (convened by the Latin America Science Co-operation Office).	CONCEPCIÓN (Chile)
Dates not fixed	International round-table discussion on the theme 'Relations between Hindu culture and other cultures' (convened by the Ramakrishna Institute of Culture, with the financial help of Unesco).	CALCUTTA
Dates not fixed	Unesco/IBE Joint Committee.	UNESCO
Dates not fixed	Regional Training Course on the Prospection and Evaluation of Underground Water Resources (convened by the South Asia Science Co-operation Office).	PAKISTAN OR INDIA
Dates not fixed (end November)	Regional Seminar on the Development of Professional Organizations interested in the Project for the Production of Reading Materials.	COLOMBO
DECEMBER		
4-5	Working Party of International Non-Governmental Organizations on 'Youth faces the modern world'.	UNESCO
4-15	International Seminar on the Role of Audio-visual Aids in the Teaching of Foreign Languages in and out of School (convened by the National Commission of Senegal, with the financial help of Unesco).	DAKAR
4-16	Conference on Education and Economic and Social Development in Latin America (convened jointly by Unesco and the Economic Commission for Latin America).	SANTIAGO (Chile)
6-7	Working Party of International Non-Governmental Organizations on the 'Extension of international collaboration in education, science and culture to the countries of Africa'.	UNESCO
8	Committee elected by the Seventh Conference of Non-Governmental Organizations.	UNESCO
11-21	Meeting of the High Contracting Parties to the Convention for the Protection of Cultural Property in the Event of Armed Conflict.	UNESCO
12-13 tentative	Selection Committee—Study Tours for European Workers.	UNESCO
22-27 Jan.	Regional Seminar on Educational Planning and Administration in South and South-East Asia.	NEW DELHI
28-8 Jan.	Regional Workshop on Urbanization in Africa (convened jointly by the United Nations, Specialized Agencies, the United Nations Economic Commission for Africa and Unesco).	ADDIS ABABA
Dates not fixed (10 days)	Regional Conference on Adult Education in South-East Asia (convened by the Government of Viet-Nam, with the financial help of Unesco).	SAIGON
Dates not fixed	Preparatory Meeting on the Establishment of a European Institute of Social Sciences (convened by the International Social Science Council and the Austrian National Commission for Unesco under the Participation Programme).	VIENNA
Dates not fixed	Symposium on Plant Tissue and Organ Culture (convened by the South Asia Science Co-operation Office).	NEW DELHI

Date		*Place*
Dates not fixed	Regional Meeting on Scientific Research (convened by the South-East Asia Science Co-operation Office).	HONG KONG
Dates not fixed	Regional Seminar on Seismology (convened by the Latin America Science Co-operation Office).	CHILE
Dates not fixed	Training Course in the Production and Use of Low-cost Visual Aids (convened by the National Institute of Audio-Visual Education, with the financial help of Unesco).	NEW DELHI
Dates not fixed	Conference on the Teaching of Mathematics at the University Level (convened by the International Mathematical Union, with the, financial help of Unesco).	BOGOTA

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